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ABSTRACT

The interim evaluation of the Experience-Based Career Education (EBCE) Program of the Appalachia Educational Laboratory, Inc. (AEL), a community-based alternative curriculum for high school seniors, was not intended for general readers and its terminology is for that reason quite technical. The report's first section briefly describes the EBCE summative and formative evaluation designs. Sections 2 and 3 discuss the design instrumentation, testing procedure, and findings of the two evaluation strategies. Section 2 describes the EBCE summative evaluation which included planning, developing the instrument, implementing revised plans, and establishing timelines so that valid and reliable evidence on the effectiveness of the products and resources required by the AEL/EBCE program could be gathered. Program components are assessed in section 3 regarding their functionablity both in isolation and in interaction with other components. Also described is the EBCE formative evaluation which included collcting and analyzing preliminary data, establishing evaluation controls, planning for data analysis, instrument development, administration of instruments, and data analysis and reporting. Section 4 provides summary and recommendations. Seven appendixes (1973 EBCE graduate questionnaire, student and parent opinion surveys, participating employer and student information questionnaires, formative evaluation instrument package, and problem solving procedures) comprise one-half of the document. (JR)

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INTERIM EVALUATION REPORT

MARCH 15, 1974

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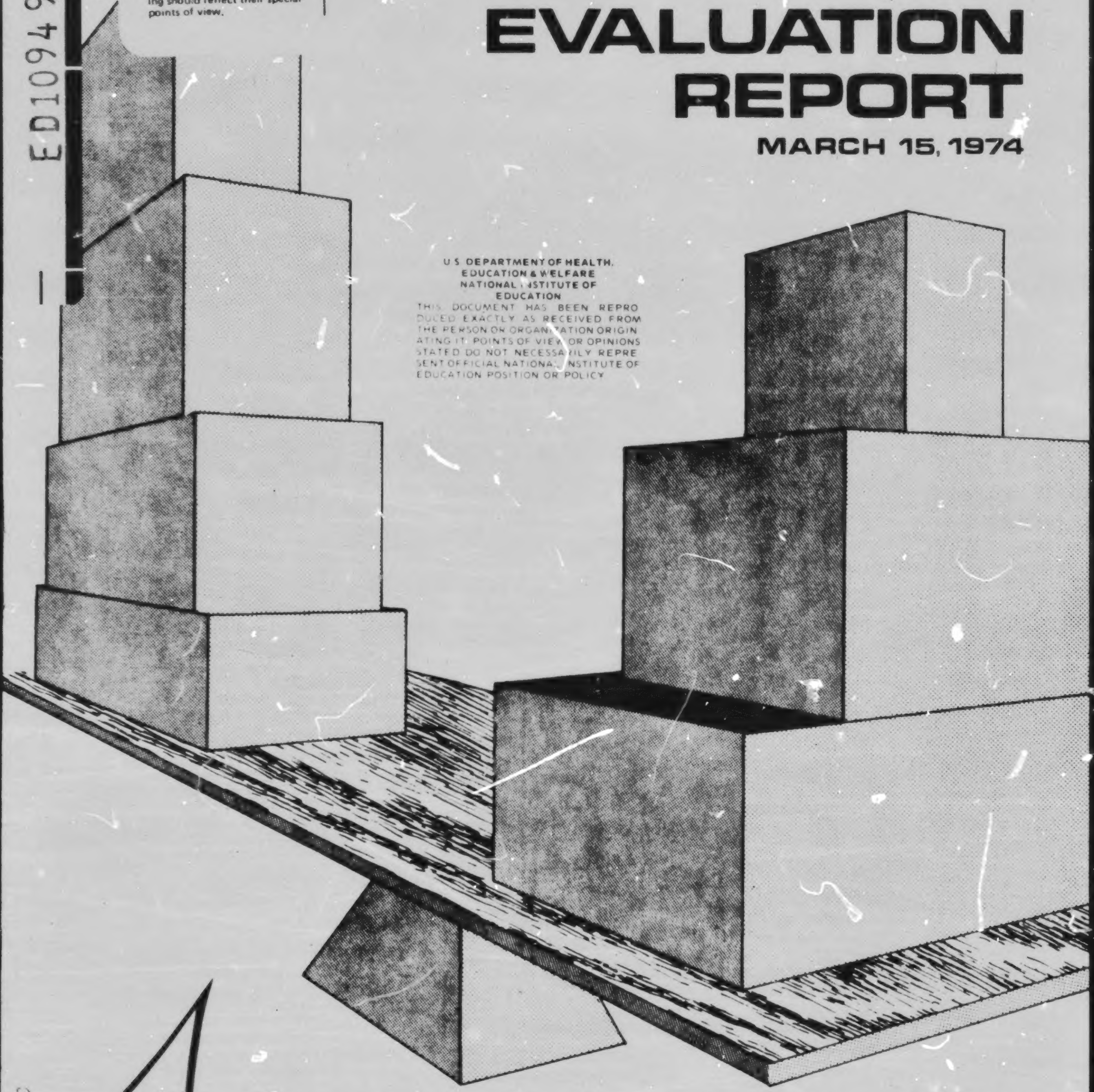

EXPERIENCE BASED CAREER EDUCATION
APPALACHIA EDUCATIONAL LABORATORY, INC.
CHARLESTON, WEST VIRGINIA

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JUN 09 1975

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I. INTRODUCTION TO THE INTERIM EVALUATION REPORT

This Interim Evaluation Report has been prepared by the Stabilization/Evaluation staff of the Experienced Based Career Education (EBCE) Program of the Appalachia Educational Laboratory, Inc. (AEL). The document is intended to satisfy a requirement of the AEL/EBCE contract with the National Institute of Education (NIE) that an interim internal summative evaluation report be prepared and submitted to the Career Education Program (CEP) staff of NIE. This report is responsive in content and form (with minor modifications) to the *Guidelines for the Interim Evaluation Reports for Experienced-Based Career Education* prepared by the NIE/Model II evaluator.

The report has not been written for the general reader. The AEL/EBCE Program components are described in rather abstract system terms within the report (see especially Section 3). But a full and detailed description of the EBCE Program effort in Kanawha County, West Virginia has not been attempted.

The report is principally intended for the NIE Career Education Program staff and members of the External Site Review Team. It is most meaningfully read in conjunction with specific program materials and such descriptions of the program, its staff, and the community and its experience sites, as may be found in the *Operational Plan, FY 1974*; the first *Quarterly Progress* Report; and the second *Quarterly Progress Report* (December 1, 1973-February 28, 1974).

In the event that the reader does not have access to these more detailed program descriptions, other background materials, or first-hand knowledge of Model II programs of NIE/CEP, he is urged to obtain such information. Program Quarterly Reports may be obtained from the EBCE Program Director, Appalachia Educational Laboratory, P. O. Box 1348, Charleston, West Virginia, 25325.

II. ORGANIZATION OF THE INTERIM REPORT

The report is organized into four sections.

Section 1 provides an overview of EBCE evaluation activities between September 1, 1973 and March 1, 1974. The first part of the section identifies the development of strong formative evaluation as a basic resource to support decision making and program assessment.

Section 2 presents the activities and findings of summative evaluation. Part VII of Section 2 presents the status of evidence concerning each evaluation hypothesis.

Section 3 gives an overview of the AEL/EBCE subsystems and presents findings, recommendations, and relevant program actions.

Section 4 briefly summarizes findings and conclusions and presents recommendations and relevant program actions, recognizing that the formative evaluation process is interactive and reiterative.

SECTION 1

Overview of
Experience Based Career Education
Evaluation Activities
To
March 1, 1974

I. INTRODUCTION

The purpose of this section of the interim report is to highlight evaluation activities, suggest a context for their interpretation, and to present an analysis of the needs and rationale leading to emphasis on stabilization and formative evaluation.

II. MAJOR EMPHASES IN EVALUATION

The AEL/EBCE conceives the formative evaluation process to be a basic resource to support decision making and program assessment. The development of a formative evaluation plan and the instrumentation and staff to implement the plan have been major program activities during the current fiscal year. The context in which this evaluation emphasis occurs is the program mandate to achieve a stabilized program prototype by August of 1974. The analysis of needs and development of the rationale leading to the stabilization emphasis are found in the Operational Plan, FY 1974, Volume II, Component J, "Planning and Formative Evaluation."

In the spring of 1973 program personnel recognized that throughout the previous year planning processes and procedures had been characterized by diffused responsibilities and relative informality. In many cases responsibilities for identifying problems, defining information needs, collecting and analyzing data, assessing alternatives, and recommending courses of action were so widely dispersed among the staff that coordination and tracking of decisions was next to impossible. Valuable information sometimes "fell through the cracks" and was lost. Operational and design activities were often momentarily stalemated. It was fully recognized early that planning for stabilization of the program could not be effective when the staff was so frequently engaged in short range, after-the-fact, red flag "problem solving."

Thus, a need existed for a clearer planning and decision making process. It was determined that the need would be satisfied, in part, by the adoption of procedures and assignments which would (1) coordinate and consolidate such decision-making activities as planning, evaluation, information storage and retreival, and documentation; (2) insure that decisions are systematically made in light of all available information and a careful assessment of alternatives; (3) be sufficiently flexible to work efficiently with issues and problems of all sizes and levels of importance.

A number of alternatives for reorganization and staffing were considered. It was paramount that a strong and vigorous formative evaluation effort be enjoined. Though many persons on the staff were trained and experienced in basic research and evaluation techniques, there was the need to allocate responsibilities directly to a few staff members to plan and carry out formative evaluation as part of the total program problem-solving and decision-making processes being established. Yet, at the same time, it was deemed of utmost importance that the evaluation skills of non-evaluators be identified and used. Some individuals are particularly adept at looking for possibilities in all sorts of situations, thereby becoming prime "hypothesis generators." Others may be particularly skillful in weighing large amounts of complex and subtly conflicting evidence. Still others approach issues and problems from the perspective of the persons involved, giving attention, thus, to their feelings and emotions in such a way as to lead toward humanizing an otherwise "cold, objective, and purely logical" evaluation process. Thus, the desire of the program director and others was to conceptualize an organizational pattern which would capture the rich and varied inputs, even at artisitc, emotive, and intuitive levels, from all staff for systematic, information based, decision-making for the program.

Several efforts have been made to develop and implement a system to maximize the information base on which decisions are made. One such plan is used extensively within the Development and Design Unit of the EBCE Program. It is a simple format in which nearly all problems can be identified and dealt with known as N-R-P, an abbreviation for Need, Rationale, Procedures. The staff uses this NRP approach as a systematic way to address all sorts and varieties of issues and problems. It has not been adopted as a problem solving stance in other units of the EBCE program.

A second, and more extensive plan for involving all staff persons in problem identification and problem solving has been formally adopted, though not yet fully implemented. It is the operational activity that identifies problems through a Problems/Needs Request Form available to all staff members. It also establishes a method by which Problem/Needs are reviewed, prioritized, and acted upon.

The Stabilization Unit which includes the formative evaluator and the summative evaluator, reviews each Problems/Needs Request. In this review, it may be found that the matter can be handled by an administrative decision or perhaps by some information available to the evaluators. The Problems/Needs Request may suggest an item to be analyzed or a whole area in which research could or should be done.

The Stabilization Management Team, comprised of the project director and directors of the Design, Operations, Stabilization and Replication Units meet to review all Problem/Needs Requests. A full and detailed description of the process is shown as Appendix C of this report. The principle item of Appendix C is the Problem-Solving Procedures statement, though the memos introducing it are included for clarification.

It should be noted that formative evaluation interacts with this problem solving process in at least two ways:

1. It is a major information base for feeding problems into the process.
2. The formative evaluator is a primary source to which problems are referred to obtain available information or to generate and conduct mini-experiments or studies to answer questions.

III. FORMATIVE EVALUATION ACTIVITIES

Between September 1 and October 31, the major formative evaluation efforts were in planning. Instrument development accounted for much of November and December. Implementing the revised plan has occurred in December, January, and February.

A. Revising the Formative Evaluation Plan

Revising the Formative Evaluation Plan was a major activity in September and October. Three consultants were selected to critique the evaluation plans and to propose how they could be strengthened in revision. Dr. James Wardrop from the University of Illinois was selected from among the three to assist AEL with the revision. The plan revision task was completed October 31, 1973. An estimated 30 AEL man-days plus 20 consultant days were used to develop the revised Formative Evaluation Plan.

B. Developing Instruments

Instrument development was a major activity from November 1 to December 1. Each instrument was developed on the basis of questions outlined in the Formative Evaluation Plan, the priority analysis and the type of instrument projected. Instrument development was a seven-step process.

1. The first step was a combined effort between the formative evaluation of AEL/EBCE and the formative evaluation consultant.
2. The second step was a review of existing formative evaluation instruments with the AEL/EBCE Program and other EBCE programs.
3. The third step was an analysis of each question stated in the plan by the appropriate respondent(s).

4. The fourth step was to develop the first draft of each instrument.
5. The fifth step was to administer the instruments to the appropriate sample, analyze the data, and report findings.
6. The sixth step is a revision of each instrument based on the critiques of the first administration.
7. The seventh step includes performing all reliability and validity studies that are necessary.

Items 1 through 4 above were completed during the month of November. Item 5 occurred during December and January. Items 6 and 7 are projected to be completed and reported in the final evaluation report. Copies of the formative instruments appear in this report as Appendix B.

C. Establishing Timelines

Timelines established for the formative evaluation of the Experience-Based Career Education system cover the period of time between December 1 and January 31. Since the plan was revised (September through October) and instruments had to be developed (November), implementing the evaluation sooner would have been unwise. Due to the late start, each instrument was administered once to the appropriate sample except where indicated in Section 3.

IV. SUMMATIVE EVALUATION ACTIVITIES

A. Collecting and Analyzing Preliminary Data

During the Student Orientation period on September 15, each recruited and selected EBCE student participated in a data collection program employing standardized instruments. Eight hours of inventories and tests were employed. To assess student academic achievement in reading, language arts, mathematics, social studies, science, and use of sources, the Iowa Test of Educational Development was used. The Career Maturity Inventory was used to collect information about each student's career development.

B. Establishing Necessary Evaluation Controls

The operating task statements and the Summative Evaluation Plan called for the random selection of an equal number of students from among the volunteers to the program to serve as experimental and control groups. There was an insufficient number of student volunteers in the fall and at mid-year to permit randomly selecting a control group.

At the fall recruitment, a contingency plan was developed, and approved by NIE, to identify two comparison groups; one a completely random sample of seniors from all the Kanawha County Schools, and a second random sample group from some "career education like" programs in the Kanawha County Schools. Details of this sampling and testing process appear in Section 2 of this report.

The procedures for recruiting students in such a way as to meet the NIE/CEP demands for specific numbers remains a problem. It is especially difficult to achieve an ethical position with respect to the use of human subjects in research and development under circumstances in which funding is contingent upon the successful completion of the recruitment.

C. Planning for Data Analysis

A data analysis plan was requested by NIE as an addendum to the Summative Evaluation Plan. Dr. James Weber, a consultant approved by NIE, developed the plan. This plan was completed in October and approved in early November. The plan includes a complex multivariate analysis scheme, and is presented in part, in Section 2.

D. Instrument Development

This activity is detailed in Section 2 and the instruments are displayed in Appendix A

E. Administration of Instruments

During January and February, summative activities were at a peak.

1. The battery of standardized instruments was administered to new students.
2. Questionnaires were distributed to parents, current students, and participating EBCE employers.
3. A second mailing of questionnaires to 1973 EBCE graduates was undertaken.

F. Data Analysis and Reporting

Most recent activities have involved the completion of planned data analyses, test scoring for second semester students, and report writing.

SECTION 2

Interim Report of
Experience Based Career Education
Summative Evaluation
To
March 1, 1974

I. INTRODUCTION

A principal function of summative evaluation is to develop valid and reliable evidence of the effects on students of the EBCE Program and its various components. It seeks to answer the question, "What effects on students can be unambiguously attributed to the program or specific program elements?"

Summative evaluation also seeks to provide evidence on the effectiveness of the program in achieving its stated goals as they relate to student behavior, program development, and program structure. Summative evaluation should be based on instruments with sufficient sensitivity, used in designs with sufficient experimental rigor, to provide information useful for program decision-making as well as for NIE/CEP program and funding decisions.

Instruments for measuring criterion variables relevant to career education are not highly satisfactory at the current time. An effort to assess the strength of one instrument (Career Maturity Inventory) is reported in the Formative Evaluation section of this report (Section III).

Changes from the planned experimental design to a quasi-experimental design with non-equal comparison groups are described in this section of the report. Most of the data reported in this section relating to current EBCE students is descriptive. The effects of the program based on the comparison of differences in pre- and post-test scores among comparison groups will not be ascertained until mid-summer of 1974.

II. ORGANIZATION

This section of the report is organized to provide a clear understanding of AEL/EBCE's summative evaluation. Part III describes the design for summative evaluation, the data analyses which have been done and are planned, and a presentation of the hypotheses to be tested. Part IV presents both the standardized and the specially constructed instruments used in summative evaluation and also the testing timelines. A description of the student populations is included as part V of this section. Finally, in part VI, the findings of summative evaluation to date are presented with explanations of questionnaire administration and results.

III. DESIGN OF SUMMATIVE EVALUATION

The primary purpose of the summative evaluation design is to provide valid and reliable evidence on the effectiveness of the products and the resources required of the AEL/EBCE Program. This design is particularly aimed at the evaluation needs for program dissemination although the results will be of formative use to staff as they complete program development.

A. Description of the Design

The summative evaluation design is illustrated in Figure 2-1. I's represent input or classification variables; X's represent criterion variables. One group of the two EBCE Program starts included students enrolled in the EBCE Program in September of 1973 (n=50); these students

Figure 2-1

Summative Evaluation Design

(1) Pre-Post Comparison Group Design:

September-October, 1973		May, 1974
I,X	(EBCE Program)	X
I,X	(COOP Sample)	X
I,X	(Random Sample of Seniors)	X

(2) One-Group Pre-Post Design:

September, 1973	January, 1974	May, 1974
I,X	(EBCE Program Students)	X
	I,X (Midyear EBCE Students)	X

(3) One-Group Post-Test Only Design:

September, 1973	January, 1974	May, 1974
(EBCE Program)	X_1	X_2
(EBCE Midyear Program Starts)		X

are scheduled to remain with the program the entire school year. The second group of EBCE Program students attended the local Kanawha County schools during the first semester and enrolled in the EBCE Program during the second semester (n=45).

Two additional groups of Kanawha County students were randomly drawn so that comparisons could be made. One group is a random sample of senior students enrolled in a Kanawha County Cooperative-Work Study Educational Program. This program is offered to students in five of the eleven county high schools; a random sample of 75 students was drawn from all five schools. The second comparison group is a random sample of 120 senior students enrolled in the eleven Kanawha County high schools. The samples in both cases were stratified by the size of the high school.

B. Analyses of Data

The initial set of analyses described in this section used the pretest data that were collected in September and October. The general concerns addressed by these analyses were (1) how comparable are the two non-equivalent comparison groups to the EBCE group in terms of the selected input and criterion variables and (2) what interrelationships exist among the different criterion variables. The first concern was addressed via the execution of a multivariate analysis of variance. The major independent variable in this analysis related to the three different groups of students. The multiple dependent variables were the more continuous variables. The dependent variables in the first analysis were the Career Maturity Inventory, scales from the Confidential

Student Questionnaire, Educational Development Series tests, attendance ratios, and grade point average.

A second analysis, which was a principal components analysis, was conducted to examine the interrelationships between the various criterion variables. The initial analysis was followed by an orthogonal rotation so that intercriteria similarities could be identified.

The last set of analyses, to be conducted in the summer, 1974, will deal with total design concerns including the following:

1. Has exposure to EBCE, the COOP Program, and the regular school program been differentially effective in terms of gains in students' goal-related performances?
2. Are variations in EBCE-related process variables significantly related to differential gains in students' goal-related performances?
3. Has the EBCE Program in terms of its structural goals been realized?

The proposed basic analytical technique is the multivariate analysis of variance. The major independent variable is the group condition variable. The major dependent variables will be the gain scores observed in relation to the more continuous variables in the criterion set.

C. Hypotheses to Be Tested

The basic hypotheses to be tested include the following:

1. EBCE students will become more knowledgeable of the world of work than the students from either comparison group.

2. EBCE students will be more capable of locating and acquiring work than the students from either comparison group.
3. EBCE students will do as well as the students from either comparison group on academic growth.
4. EBCE students will be more positive in their attitude toward the world of work than the students from either comparison group.
5. EBCE students will be more capable of planning for their future than the students from either comparison group.
6. EBCE students will be more capable of solving the problems confronting them in reaching their goals than the students from either comparison group.
7. EBCE students will be more capable of appraising the career relevant capabilities of others than the students from either comparison group.
8. EBCE students will be more able to choose realistic career goals than the students from either comparison group.
9. EBCE parents will have a positive attitude toward the EBCE Program.
10. Employers (ie., resource persons, contact persons, and managers) will have a positive attitude toward the EBCE Program.

11 EBCE students will have a positive attitude toward the EBCE Program.

12. Labor union officials will have a positive attitude toward the EBCE Program

13. Kanawha County school officials will endorse the EBCE Program.

14. West Virginia State Department of Education officials will endorse the EBCE Program.

15. There will be a lower relative frequency of school dropouts from the EBCE Program than from the Kanawha County Schools.

IV. INSTRUMENTS AND TESTING TIMELINES

Standardized instruments and specially constructed questionnaires are being used to measure the criterion variables identified in the hypotheses listed in part III. This part describes these instruments and questionnaires and the timelines for administration, scoring, data analysis, and reporting.

A. Standardized Instruments

Among standardized psychological and educational instruments are these: The Career Maturity Inventory; the Iowa Tests of Educational Development, the achievement battery of the Educational Development Series; and the Student Information System, Confidential Student Questionnaire.

1. Career Maturity Inventory

Various aspects of career maturity will be measured with the Career Maturity Inventory which has been constructed to measure the maturity of attitudes and competencies needed to make realistic career choices. The CMI has an Attitude Scale and a Competence Scale. The Competence Scale consists of subscales in the areas of self-appraisal, occupational information, goal selection, planning, and problem solving. The Attitude Scale consists of fifty attitudinal statements. The reliability coefficient for the Attitude Scale is .75 for 12th graders and .74 for the overall mean. Evidence of criterion-related validity, content validity, and construct validity is presented in the Theory and Research Handbook which accompanies the test battery.[1] Reliability evidence has been collected on the Competence Scale and ranges from a low of .73 to a high of .90 for 12th grade students. Evidence of validity is presented in the Handbook.

The Attitude Scale was designed to elicit the feelings, subjective reactions, and dispositions that the individual has toward making a career choice and entering the world of work.

The Competence Scale was designed to assess the following five competencies: Part 1, Knowing Yourself - how well the individual can appraise job-related activities; Part 2, Knowing About Jobs - how much the individual knows about the world of work; Part 3, Choosing a Job - how adept the individual is in matching personal characteristics with occupational requirements; Part 4, Looking Ahead - how foresightful the individual is in planning for a career; and Part 5, What Should They Do - how effectively the individual can cope with the problems which arise in the course of career development.

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[1] John O. Crites. Theory and Research Handbook, Career Maturity Inventory. Monterey, California: CTB/McGraw-Hill, 1973.

2. Iowa Tests of Educational Development (Achievement Battery)

The Iowa Tests of Educational Development (ITED) will be used to measure achievement growth. The ITED consists of seven tests from which the following seven growth scale values can be drawn: Reading, Language Arts, Mathematics, Social Studies, Science, Use of Sources, and Composite. The composite growth score is expected to be utilized most heavily in comparing the overall achievement growth of the students. Curriculum specific growth scales will be used to determine the effect of activities in various curriculum areas. Coefficients of reliability for the ITED range from a low of .90 to a high of .97 for the 12th grade. Evidence of content validity, criterion-related validity, and construct validity is presented in the SRA Assessment Survey Technical Report.[2]

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[2] Science Research Associates, Inc. Iowa Tests of Educational Development, SRA Assessment Survey, Technical Report. Chicago, Illinois: Science Research Associates, Inc., 1972.

3. Educational Development Series

The Educational Development Series (EDS) is an achievement battery consisting of six tests. It was used to obtain achievement data from the EBCE students and the comparison group students in FY 74 as well as results of the FY 73 testing. Scores were obtained in Reading, English, Mathematics, Science, The USA in the World, and Solving Everyday Problems. Coefficients of reliability for the 12th grade EDS norming samples range from a low of .84 to a high of .90. Evidence of content validity and criterion-related validity is presented in the _Educational Development Series Technical Report_.[3]

4. Student Information System, Confidential Student Questionnaire

The Student Information System, Confidential Student Questionnaire (CSQ) will be used to provide behavior change data on the students. The CSQ is a highly flexible instrument for which the following scales are being scored: Cognitive Skills, Learning Attitude, Social Adjustment, Maturity, Personal Adjustment, Flexibility, Reality, and Vocational Readiness. Coefficients of reliability for the CSQ scales range from .82 on Part II to .90 on Part I. Procedures for establishing validity evidence are presented in the _Manual of Student Information System_.[4]

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[3] Scholastic Testing Service. _Educational Development Series Technical Report - Senior Level_. Bensenville, Illinois: Spring, 1972.

[4] Behavioral Consultants. _Manual of Student Information System_. Salt Lake City, Utah: Behavioral Consultants, (undated).

B. Specially Constructed Questionnaires

Specially constructed questionnaires used to assess the attitudes and opinions of special subject groups toward the EBCE Program are these: EBCE 1973 Graduate Questionnaire, EBCE Student Opinion Survey, EBCE Parent Opinion Survey, Employer Questionnaire, and Student Information Questionnaire.

1. EBCE 1973 Graduate Questionnaire

The EBCE Graduate Questionnaire was designed to obtain information from FY 73 EBCE graduates of the effects of the program on getting work and further training (see Appendix A-1). The instrument was designed so that all FY 73 graduates would respond to the first section (white). All respondents were then programmed on the last item either to complete the Post High School Training Questionnaire (green), to complete the EBCE Graduate Employment Questionnaire (blue), or to stop. Those respondents going to school only were to answer the white and the green qestionnaires. Those respondents working only were to answer the white and the blue questionnaires. Those students working and going to school were to answer all three questionnaires.

The questionnaire, cover letter, and return envelope were sent to the last known address of all FY 73 graduates in December, 1973. A second mailing was made to non-respondents in January, 1974.

2. EBCE Student Opinion Survey

The Student Opinion Survey (see Appendix A-2) was designed to assess EBCE students' attitudes toward the EBCE Program, including their opinions of the effects, strengths, and weaknesses. The instrument was developed by the EBCE evaluators from the Appalachia Educational Laboratory, Inc., the Far West Laboratory, the Northwest Laboratory, Research for Better Schools, Inc., and from the Career Education Program of the National Institute of Education. Evaluators from the EBCE Program at Research for Better Schools were given the primary responsibility of drawing up the initial and final drafts of the instrument. All EBCE evaluators met to critique, discuss, and revise the instrument before the development of the final draft. The instrument was designed to be used by all four EBCE Programs to collect mid-year data from EBCE students.

3. EBCE Parent Opinion Survey

The Parent Opinion Survey (see Appendix A-3) was designed to assess EBCE parents' attitudes toward the EBCE Program, including their opinions of the effects, strengths, and weaknesses. The instrument was developed by the EBCE evaluators from the Appalachia Educational Laboratory, Inc., the Far West Laboratory, the Northwest Laboratory, Research for Better Schools, Inc., and from the Career Education Program of the National Institute of Education. Evaluators from the EBCE Program at the Research for Better Schools were given the primary responsibility of drawing up the initial and final drafts of the instrument. All EBCE evaluators met to critique, discuss, and revise the instrument before the development of the final draft. The instrument was designed to be used by all four EBCE Programs to collect mid-year data from EBCE parents.

4. Participating EBCE Employer Questionnaire

The Employer Questionnaire (see Appendix A-4) was designed to assess the attitudes of employer resource persons toward the EBCE Program. The instrument was developed by the EBCE evaluators from the Appalachia Educational Laboratory, Inc., the Far West Laboratory, the Northwest Laboratory, Research for Better Schools, Inc., and from the Career Education Program of the National Institute of Education. Evaluators from the Appalachia Educational Laboratory, Inc. were given the responsibility of drawing up the initial and final drafts of the instrument. All EBCE evaluators met to critique, discuss, and revise the instrument before the development of the final draft. The instrument was designed to be used by all four EBCE Programs to collect mid-year employer data. The evaluators will review and revise the instrument before it is administered a second time.

5. Student Information Questionnaire

The Student Information Questionnaire (see Appendix A-5) was designed by the NIE/CEP evaluation staff. It is used to gather data on student sex, race, grade level, and parent education and occupation. In addition, the questionnaire seeks information from students on their current curriculum and expected activities following completion of high school.

C. Testing Timelines

The schedule for test administration, scoring, analysis of data, and reporting was modified by changes in the evaluation design made in September, 1973. Figure 2-2, Instrument Administration Schedule, shows the timelines followed to March 1, 1974, and testing times planned for the spring and summer of 1974. Pretesting in the fall of 1973 was extended into October to accommodate school schedules with the Cooperative-Work Study sample and the random sample from all Kanawha County schools. Final testing of both the fall and mid-year EBCE students on standardized measures will take place on April 22-23, 1974. This relatively early date fits well with the Kanawha County school holidays. It will enable students to have greater continuity of experience site placements and to attend senior year activities during the last month of school.

V. STUDENT POPULATIONS

Questionnaires and tests were administered to all Experience-Based Career Education (EBCE) students, the random sample of Kanawha County 12th grade students (RANDOM), and the random sample of Kanawha County 12th grade students in the Vocational Cooperative-Work Study (COOP) Program in order to establish the comparability of groups. Students were administered all instruments within the time interval of September 15, 1973 through October 15, 1973. This part, based on pretest data, includes a report of demographic data and statistical comparisons of the three groups. It should be noted the EBCE 11th grade data are presented, but no comparisons were made with any other group because of the small n (n=5) included in the sample.

Instruments & Subject Samples	1973				1974							
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.
S. I. Q.												
■ EBCE–Fall	■											
■ Co-Op Sample	■	■										
■ KCHS Sample	■	■										
■ EBCE Mid-Year					■							
C. M. I.												
■ EBCE–Fall	■				■			■				
■ Co-Op Sample	■	■						■	■			
■ KCHS Sample	■	■						■	■			
■ EBCE Mid-Year					■			■				
I. T. E. D.												
■ EBCE–Fall	■							■				
■ Co-Op Sample												
■ KCHS Sample												
■ EBCE Mid-Year					■			■				
E. D. S.												
■ EBCE–Fall	■							■				
■ Co-Op Sample	■	■						■	■			
■ KCHS Sample	■	■						■	■			
■ EBCE Mid-Year					■			■				
S. I. S.–C. S. Q.												
■ EBCE–Fall	■							■				
■ Co-Op Sample	■	■						■	■			
■ KCHS Sample	■	■						■	■			
■ EBCE Mid-Year					■			■				
S. O. Q.												
■ EBCE–Fall					■			■				
■ Co-Op Sample												
■ KCHS Sample												
■ EBCE Mid-Year								■				
Parent Opinion Questionnaire					■					■		
Employer Opinion Questionnaire					■					■		
Graduate Questionnaire				■	■							■
Follow-Up Questionnaire												■

Figure 2-2

Table 2-3

A Summary of the Background Characteristics of the Selected Students

Variable	Possible Responses	EBCE		COOP n=64	RANDOM SAMPLE n=110	Total Grade 12 n=217
		n=5 Grade 11	n=45* Grade 12			
		%	%	%	%	%
Sex	Male	60.0	39.5	45.3	46.4	44.7
	Female	40.0	60.5	54.7	53.6	55.3
Race	White	100.0	88.4	90.6	90.9	90.3
	Black	0.0	9.3	6.3	5.5	6.5
	Oriental	0.0	0.0	0.0	0.0	0.0
	Spanish Descent	0.0	2.3	0.0	0.0	0.5
	Native American	0.0	0.0	1.6	2.7	1.8
	Other	0.0	0.0	1.6	0.9	0.9
Father's Occupation	Clerical	0.0	4.7	0.0	1.9	1.9
	Craftsman	0.0	11.6	19.0	12.4	14.2
	Farmer, Farm Manager	0.0	0.0	0.0	0.0	0.0
	Homemaker	0.0	0.0	0.0	1.0	0.5
	Laborer	0.0	16.3	9.5	14.3	13.3
	Manager, Adm.	40.0	18.6	12.7	13.3	14.2
	Military	0.0	0.0	1.6	1.9	1.4
	Operative	20.0	25.6	19.0	11.4	16.6
	Professional	20.0	18.6	14.3	21.0	18.5
	Proprietor or Owner	20.0	0.0	9.5	7.6	6.6
	Protective Ser.	0.0	0.0	3.2	2.9	2.4
	Sales	0.0	0.0	3.2	2.9	2.4
	Service	0.0	0.0	3.2	4.8	3.3
	Technical	0.0	0.0	4.8	3.8	3.3
	Other	0.0	2.3	0.0	1.0	0.9
	Don't Know	0.0	2.3	0.0	0.0	0.5
Mother's Occupation	Clerical	40.0	16.7	24.2	13.2	17.1
	Craftsman	0.0	0.0	1.6	0.9	1.0
	Farmer, Farm Manager	0.0	0.0	0.0	0.0	0.0
	Homemaker or Housewife	0.0	45.2	43.5	53.8	49.0
	Laborer	0.0	2.4	0.0	0.0	0.5
	Manager, Adm.	20.0	2.4	1.6	1.9	1.9
	Military	0.0	0.0	0.0	0.9	0.5
	Operative	0.0	2.4	1.6	2.8	2.4
	Professional	20.0	21.4	11.3	13.2	14.3
	Proprietor or Owner	20.0	2.4	1.6	1.9	1.9
	Protective Ser.	0.0	0.0	0.0	0.0	0.0
	Sales	0.0	2.4	9.7	3.8	5.2
	Service	0.0	4.8	4.8	4.7	4.8
	Technical	0.0	0.0	0.0	1.9	1.0
	Other	0.0	0.0	0.0	0.9	0.5
	Don't Know	0.0	0.0	0.0	0.0	0.0

Table 2-3 (Continued)

Variable	Possible Responses	EBCE n=5 Grade 11	EBCE n=45* Grade 12	COOP n=64	RANDOM SAMPLE n=110	Total Grade 12 n=217
		%	%	%	%	%
Father's Education	None	0.0	0.0	0.0	0.9	0.5
	Elementary School	0.0	9.3	6.3	6.4	6.5
	Some High School	0.0	20.9	21.9	24.5	23.0
	High School Grad.	40.0	23.3	42.2	27.3	30.9
	Some Post-Secondary	0.0	11.6	20.3	13.6	15.2
	College Graduate	0.0	16.3	7.8	14.5	12.9
	Some Grad. Work	20.0	11.6	1.6	5.5	6.0
	Advanced Degree	40.0	2.3	1.6	6.4	4.1
	Don't Know or Blank	0.0	4.7	0.0	0.9	1.4
Mother's Education	None	0.0	0.0	0.0	0.0	0.0
	Elementary School	0.0	4.7	3.1	2.7	3.2
	Some High School	0.0	16.3	25.0	17.3	19.4
	High School Grad.	40.0	41.9	41.9	48.2	45.2
	Some Post-Secondary	0.0	18.6	18.8	16.4	17.5
	College Graduate	20.0	7.0	7.8	10.0	8.8
	Some Grad. Work	0.0	7.0	0.0	0.9	1.8
	Advanced Degree	40.0	2.3	3.1	3.6	3.2
	Don't Know or Blank	0.0	2.3	0.0	0.9	0.9

*The statistics presented were generated via a missing data procedure and as a result the n's vary slightly across items. The values indicated are the modal sample sizes - the ranges in the sample sizes were as follows:

(a) EBCE: 44 to 42
(b) COOP: 70 to 59
(c) Random: 114 to 102
(d) Total: 228 to 204

Table 2-4

Comparison of Mothers' and Fathers' Formal Education

	11th Grade n=5		12th Grade n=44		COOP n=70		Random n=114		Total 12th Grade	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Father's Education [None (1) through Advanced Degree (8)]	6.20	----	4.62	3.12	4.16	1.31	4.45	2.66	4.40	2.35
Mother's Education [None (1) through Advanced Degree (8)]	6.00	----	4.49	2.21	4.16	1.37	4.31	1.44	4.30	1.57

Table 2-5

A Brief Summary of the Preliminary Career Choices of Sample Students

Variable	Responses	EBCE Grade 11 n=5	EBCE Grade 12 n=43*	COOP n=64	RANDOM SAMPLE n=110	Total Grade 12 n=217
		%	%	%	%	%
Long-Range Goals	Clerical	20.0	7.0	12.5	10.9	10.6
	Craftsman	0.0	4.7	9.4	9.1	8.3
	Farmer, Farm Manager	0.0	4.7	3.1	0.9	2.3
	Homemaker or Housewife	0.0	0.0	1.6	4.5	2.8
	Laborer	0.0	7.0	0.0	0.0	1.4
	Manager, Administrator	0.0	7.0	4.7	1.8	3.7
	Military	0.0	0.0	0.0	1.8	0.9
	Operative	0.0	0.0	1.6	2.7	1.8
	Professional	20.0	37.2	39.1	43.6	41.0
	Proprietor or Owner	0.0	0.0	0.0	0.0	0.0
	Protective Service	0.0	2.3	1.6	1.8	1.8
	Sales	0.0	2.3	1.6	1.8	1.8
	Service	0.0	0.0	0.0	1.8	0.9
	Technical	0.0	7.0	6.3	4.5	5.5
	Other	0.0	7.0	12.5	8.2	9.2
	Don't know	60.0	14.0	6.3	6.4	7.8
Expectations a Year Hence	Working Full Time	80.0	25.0	20.0	20.2	21.1
	Entering Apprenticeship-Type Program	0.0	6.8	2.9	1.8	3.1
	Military Service	0.0	2.3	4.3	3.5	3.5
	Full-Time Homemaker	0.0	4.5	0.0	1.8	1.8
	Attending Tech., Voc., etc., School	0.0	2.3	5.7	4.4	4.4
	Junior or Comm. College (Academic)	0.0	4.5	5.7	1.8	3.5
	Junior or Comm. College (Technical)	0.0	0.0	5.7	2.6	3.1
	Four-year College or University	20.0	35.4	37.1	49.1	43.0
	Working Part-Time	0.0	2.3	1.4	7.0	4.4
	Other	0.0	15.9	17.1	7.9	12.3
Major Field of Study	General Curriculum	60.0	58.1	30.5	33.3	37.7
	Vocational Ed Curriculum	20.0	7.0	15.3	17.6	14.7
	College Prep Curriculum	20.0	27.9	49.2	48.0	44.1
	Other	0.0	7.0	5.1	1.0	3.4

*The statistics presented were generated via a missing data procedure and as a result the n's vary slightly across items. The values indicated are the modal sample sizes - the ranges in the sample sizes were as follows: (a) EBCE: 44 to 42, (b) COOP: 70 to 59, (c) Random: 114 to 102, and (d) Total: 228 to 204.

Table 2-6

The EBCE Students' Major Reasons for Joining the Program

Response Options	Observed Percentages 11th Grade n=5	 12th Grade n=43
Dissatisfied with last year's school program	0.0	30.2
Want more information on careers	80.0	44.2
Want a more personalized program	20.0	18.6
I heard it's an easy program	0.0	7.0
Other	0.0	0.0

Table 2-7

Summary of Pretest Data

	EBCE n=44		COOP n=70		Random n=114		F	P
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD		
Grade Point Average								
9th Grade, 1st Semester	2.18	.69	2.[illegible]	.69	2.65	.81	6.20	.01
9th Grade, 2nd Semester	2.24	.74	2.[illegible]3	.73	2.68	.77	5.45	.01
10th Grade, 1st Semester	2.14	.74	2.38	.71	2.53	.84	4.09	.05
10th Grade, 2nd Semester	2.04	.77	2.26	.70	2.55	.85	7.31	.001
11th Grade, 1st Semester	2.06	.79	2.44	.73	2.61	.83	7.71	.001
11th Grade, 2nd Semester	2.27	.77	2.46	.78	2.61	.89	2.71	.10
Attendance Ratio								
9th Grade	.93	.06	.96	.04	.96	.04	5.24	.01
10th Grade	.91	.08	.95	.04	.96	.05	18.21	.001
11th Grade	.89	.10	.93	.08	.94	.06	8.04	.001
1972-73 EDS								
Non-Verbal	32.85	7.32	34.22	7.16	34.90	8.36	1.08	
Verbal	30.58	10.30	30.10	9.51	32.89	10.95	1.81	
Reading	37.38	12.20	36.82	10.75	40.72	12.59	2.73	.10
English	34.24	10.80	34.96	10.63	37.45	12.00	1.74	
Mathematics	22.61	8.72	23.43	7.65	26.40	10.15	3.76	.05
Science	33.10	10.80	33.31	10.55	36.21	12.75	1.84	
USA in the World	31.60	11.48	31.63	10.78	34.32	12.51	1.49	
Solving Everyday Problems	34.63	8.97	35.48	7.62	35.66	9.47	0.22	
1973-74 EDS								
Reading	36.37	5.85	37.09	5.05	38.32	6.99	1.84	
English	30.96	4.44	31.31	5.87	33.55	6.83	4.30	.05
Mathematics	26.67	4.46	28.07	3.50	28.55	6.01	2.18	
Science	38.92	6.36	37.59	6.13	39.17	5.91	1.54	
USA in the World	34.66	5.67	35.80	6.16	35.77	6.05	0.62	
Solving Everyday Problems	36.76	3.70	38.11	4.89	37.24	4.81	1.31	
CMI								
Attitude Scale	34.51	5.18	37.60	4.19	36.48	5.60	4.93	.01
Knowing Yourself	13.69	3.66	14.31	3.10	14.48	3.49	0.86	
Knowing About Jobs	16.38	3.54	16.97	2.75	17.22	3.07	1.17	
Choosing a Job	13.05	3.04	14.26	3.24	14.50	3.23	3.32	.05
Looking Ahead	12.80	3.77	14.67	2.89	14.11	3.66	4.03	.05
What should They Do	11.16	2.99	12.52	2.82	12.45	3.24	3.27	.05
CSQ								
Cognitive Skills	25.48	8.25	28.29	7.95	27.84	7.28	2.01	
Learning Attitude	15.71	3.97	17.31	3.67	17.87	3.63	5.46	.01
Social Adjustment	61.52	12.72	65.74	12.12	63.72	11.33	1.75	
Maturity	35.96	7.06	38.70	6.63	39.68	6.29	5.14	.01
Personal Adjustment	34.66	7.43	37.64	7.83	35.69	6.84	2.62	.10
Flexibility	20.31	5.45	22.26	4.69	21.94	5.06	2.26	
Reality	30.14	8.36	32.06	9.71	33.01	8.18	1.73	
Vocational Readiness	46.75	7.04	49.33	8.46	49.49	8.22	1.96	

df used is (2,225)

Student demographic data were obtained for all students from the Student Information Questionnaire (see Appendix A-5) and from student permanent records. Data from these sources were coded and tabulated. Summaries of the tabulations are presented in Table 2-3. The variable items are identified in Column 1, the possible answers available for each item in Column 2, and frequency of response in the form of a percentage in Columns 3 through 7.

A. Sex, Race, and Parental Data Comparisons

A review of the data contained in Table 2-3 revealed that the three groups of students were very similar in terms of sex, race, and parental education and occupation. The major difference appeared in the amount of parents' formal education. The EBCE mothers and fathers had slightly more formal education than either of the two comparison groups' parents (see Table 2-4). A second difference was the mothers' occupations. It appeared that a larger percent of EBCE mothers were in professional occupations than the mothers from either of the two comparison groups. There were no apparent differences between the two comparison groups with respect to parent education and occupation.

B. Student Goals, Grade Point Average, Attendance, and Achievement Comparisons

Data from the questionnaire and from student permanent record files on student goals, grade point average (GPA), attendance history, and on the 1972-73 achievement test results (1972-73 EDS) were collected. Tables 2-5, 2-6, and 2-7 contain summaries of these data. Statistical tests (Univariate Analysis of Variance) were applied to identify differences or similarities of the three groups on GPA, attendance ratios, and on the 1972-73 EDS.

1. Goals

During the previous school year, more EBCE students were enrolled in general curriculum courses than were students in either of the comparison groups. However, fewer EBCE students were enrolled in college preparatory courses than were students in either of the comparison groups during the previous year. Slightly fewer than one half of the EBCE students (44%) joined the program to obtain more information about careers. Approximately one third of the EBCE students indicated that their primary reason for joining the EBCE Program was dissatisfaction with their home schools.

2. Grade Point Average

A grade point average (GPA) was calculated for every EBCE student and for each of the comparison group students. Credits for music, physical education, student council, and other extra-curricular activities were not included in calculating the GPA. Credits for art, crafts, driver education, and for 9th grade music were included in the GPA calculations. The EBCE students had a significantly lower GPA than the random comparison group. Although the EBCE GPA score was lower than the COOP GPA score, the difference was not significant except for the first semester of the 11th grade. The two comparison groups were not significantly different on GPAs.

3. Attendance

An attendance ratio was calculated for each student by dividing the total number of days present by the total possible attendance days for the student in a Kanawha County school. The EBCE students had a significantly lower attendance ratio than the students from either of the two comparison groups for each of the preceding three years. No differences were found in the attendance ratios of the students from the two comparison groups.

4. Achievement

All students in West Virginia are administered a state-wide achievement test battery (Educational Development Series) during their 11th grade year. These test data (1972-73 EDS) were analyzed over all three groups for each of the test components. Although significant differences for mathematics ($\alpha=.05$) and reading ($\alpha=.10$) resulted from the univariate analysis, the Scheffe' method did not isolate the location of the differences between the three groups. It should be noted that there was a definite trend indicating the EBCE and the COOP students' scores were very similar and somewhat lower than the random group student scores.

C. Other Comparisons

The EBCE students and the comparison group students were administered the following instruments near the beginning of the school year: (a) Career Maturity Inventory (CMI); (b) Student Information System, Confidential Student Questionnaire - Level II (CSQ); and (c) random sections

Table 2-8

Scheffe' a Posteriori Comparisons*

	EBCE	COOP	RANDOM
GPA - 9th Grade, 1st Semester	2.18	2.46	2.65
GPA - 9th Grade, 2nd Semester	2.24	2.53	2.68
GPA - 10th Grade, 1st Semester	2.14	2.38	2.53
GPA - 10th Grade, 2nd Semester	2.04	2.26	2.55
GPA - 11th Grade, 1st Semester	2.06	2.44	2.61
GPA - 11th Grade, 2nd Semester	2.27	2.46	2.61
Attendance Ratio - 9th Grade	.93	.96	.96
Attendance Ratio - 10th Grade	.91	.95	.96
Attendance Ratio - 11th Grade	.89	.93	.94
1972-73 EDS - Reading	37.38	36.82	40.72
1972-73 EDS - Mathematics	22.61	23.43	26.40
1973-74 EDS - English	30.96	31.31	33.55
CMI - Attitude Scale	34.51	37.60	36.48
CMI - Choosing a Job	13.05	14.26	14.50
CMI - Looking Ahead	12.80	14.67	14.11
CMI - What Should They Do	11.16	12.52	12.45
CSQ - Learning Attitude	15.71	17.31	17.87
CSQ - Maturity	35.96	38.70	39.68
CSQ - Personal Adjustment	34.66	37.64	35.69

*Those means not grouped together by the same type of line are significantly different at the .05 level (Scheffe Comparisons), e.g. M_1 M_2 M_3 Means 1 and 2 are not significantly different from each other and means 2 and 3 are not significantly different from each other, but Mean 1 is significantly different from Mean 3.

of the Educational Development Series (EDS) achievement test battery. A multivariate analysis of variance was used on these variables and certain demographic variables (see Table 2-7) to determine how comparable the two groups were to the EBCE students at the beginning of the school year. The dependent variables were the three groups of students; the independent variables were the 37 listed in Table 2-7.

The analysis established that the three groups of students were different. A multivariate F of 1.69 was significant at $\alpha = .01$ $df_1 = 74$; $df_2 = 378$. Consequently, a univariate analysis of variance was applied to each of the 37 variables over the three groups of students. The F value for each variable is printed in Table 2-7 with the accompanying probability level if .10 or less.

Significant differences were found in the following variables; GPA (all six time periods); attendance ratio (all three time periods); 1972-73 EDS (mathematics and reading sections); 1973-74 EDS (English section); CMI (attitude and Parts 3, 4, and 5 of the competence test); and CSQ (learning attitude, maturity, and personal adjustment factors).

The Scheffe' method was applied to each of the variables to identify where the significant differences were located. Results can be found in Table 2-8. Those means not grouped together by the same line are significantly different at the .05 level. As a general trend the EBCE students were significantly lower than the random comparison group. As a general trend the two comparison groups were not significantly different.

The Iowa Tests of Educational Development (ITED) was administered to all EBCE students. Raw scores and percentiles based on national norms are presented in Table 2-9. The data indicate that the EBCE students on the average scored below the 50th percentile on national norms.

D. A Test for Overlap Among Variables

A principle components factor analysis was performed on all 37 variables and over all students. The rotated factor matrix was examined to determine how much overlap there was over the various instruments used. Eight factors emerged with an eigenvalue greater than 1. The eight factors accounted for over 73 percent of the total variance. A summary of the major variables composing each factor with their factor loadings is presented in Table 2-10. An examination of the eight factors reveals that 36 of the 37 variables had a factor loading of at least .50 on a factor and that only one variable had a substantial loading on more than one factor. The factors can basically be named by the various instruments used to collect the data. This would seem to be indicative of very little overlap of the various instruments and an indication that the instruments used do account for a large proportion of the total variance of the students.

VI. FINDINGS OF SUMMATIVE EVALUATION TO MARCH 1, 1974

Student Opinion Surveys were administered to all Experience-Based Career Education students at the end of the first semester (January, 1974); the EBCE Graduate Questionnaire was administered to all 1973 EBCE graduates. Parent Opinion Surveys were sent to parents of first semester students. Employers who had worked with students the first

Table 2-9

Descriptive Characterization of EBCE Students in Terms of the Iowa Tests of Educational Development

	11th Grade n=5		12th Grade n=40	
	Raw Score Mean	National Percentile	Raw Score Mean	National Percentile
Reading Comprehension	24.40	37	26.65	35
Vocabulary	16.00	31	20.53	31
Total Reading	40.40	34	47.18	41
Usage	21.20	25	24.00	30
Spelling	9.60	12	16.64	26
Total Language Arts	30.80	15	40.64	24
Mathematics	9.40	28	11.73	35
Social Studies	21.80	40	23.13	33
Science	20.60	25	24.95	34
Use of Sources	18.60	31	22.43	37
Composite	N.A.	27	N.A.	30

Table 2-10

Factor Loadings for the Thirty-Seven Variables Included in Pretest Administration

	Factor							
	1	2	3	4	5	6	7	8
GPA - 9th Grade, 1st Semester	-0.468	-0.139	-0.102	0.079	-0.104	0.278	-0.087	-0.648*
GPA - 9th Grade, 2nd Semester	-0.421	-0.082	-0.083	0.107	-0.050	0.265	-0.093	-0.729*
GPA - 10th Grade, 1st Semester	-0.321	-0.062	-0.065	0.116	-0.069	0.273	-0.052	-0.791*
GPA - 10th Grade, 2nd Semester	-0.249	-0.056	-0.111	0.176	-0.050	0.233	-0.006	-0.802*
GPA - 11th Grade, 1st Semester	-0.267	-0.165	-0.152	0.167	-0.129	0.208	-0.035	-0.767*
GPA - 11th Grade, 2nd Semester	-0.239	-0.039	-0.112	0.195	-0.087	0.194	-0.063	-0.763*
9th Grade Attendance Ratio	-0.106	-0.067	0.007	0.781*	0.039	0.188	0.093	-0.117
10th Grade Attendance Ratio	-0.068	-0.061	-0.129	0.843*	-0.010	-0.004	-0.075	-0.136
11th Grade Attendance Ratio	-0.066	0.019	-0.094	0.835*	0.029	-0.032	-0.019	-0.247
1973-74 EDS - Reading	-0.189	-0.002	0.076	-0.059	-0.844*	0.181	0.053	-0.090
1973-74 EDS - English	-0.180	-0.053	-0.053	0.001	-0.860*	0.099	0.053	-0.192
1973-74 EDS - Math	-0.530*	-0.136	0.008	0.056	0.203	-0.026	0.214	-0.193
1973-74 EDS - Science	-0.371	-0.004	-0.111	-0.009	0.241	0.420	0.313	-0.017
1973-74 EDS - USA in the World	-0.320	0.017	-0.070	0.015	0.061	0.088	-0.817*	-0.103
1973-74 EDS - Solving Problems	-0.115	-0.067	-0.018	-0.015	0.067	0.279	-0.807*	-0.088
1972-73 EDS - Non-Verbal	-0.594*	-0.000	0.004	0.097	-0.071	0.327	-0.176	-0.213
1972-73 EDS - Verbal	-0.769*	0.008	-0.020	0.045	-0.158	0.358	-0.126	-0.237
1972-73 EDS - Reading	-0.716*	-0.047	0.017	-0.023	-0.160	0.310	-0.055	-0.214
1972-73 EDS - English	-0.622*	-0.050	-0.123	-0.012	-0.273	0.347	-0.037	-0.324
1972-73 EDS - Math	-0.782*	-0.090	-0.006	0.120	-0.034	0.143	-0.113	-0.230
1972-73 EDS - Science	-0.799*	-0.032	-0.057	0.092	-0.144	0.274	-0.147	-0.231
1972-73 EDS - USA in the World	-0.781*	-0.052	0.001	0.077	-0.132	0.299	-0.167	-0.204
1972-73 EDS - Solving Problems	-0.567*	-0.081	0.006	-0.018	-0.119	0.555*	-0.151	-0.260
CMI - Attitude Scale	-0.230	-0.119	-0.134	0.049	-0.051	0.632*	-0.100	-0.302
CMI - Knowing Yourself	-0.186	-0.083	-0.119	0.046	-0.046	0.747*	-0.048	-0.135
CMI - Knowing About Jobs	-0.308	-0.095	-0.070	0.018	-0.092	0.788*	-0.006	-0.139
CMI - Choosing a Job	-0.287	-0.097	-0.104	0.026	-0.098	0.712*	-0.070	-0.190
CMI - Looking Ahead	-0.177	0.009	0.016	0.116	-0.074	0.737*	-0.164	-0.205
CMI - What Should They Do	-0.325	-0.083	-0.102	-0.010	-0.104	0.661*	-0.121	-0.265
CSQ - Cognitive Skills	-0.194	-0.861*	0.017	-0.039	0.048	-0.038	-0.011	-0.130
CSQ - Learning Attitude	-0.091	-0.775*	-0.163	-0.026	-0.018	0.037	0.007	-0.253
CSQ - Social Adjustment	-0.026	-0.866*	-0.001	0.062	-0.060	0.214	0.036	-0.008
CSQ - Maturity	-0.080	-0.183	-0.682*	0.073	-0.122	0.285	0.069	-0.153
CSQ - Personal Adjustment	-0.036	-0.859*	0.160	0.081	-0.040	0.155	-0.037	0.045
CSQ - Flexibility	0.024	-0.150	-0.737*	0.085	0.043	-0.160	-0.136	-0.068
CSQ - Reality	-0.021	0.380	-0.757*	0.073	0.115	0.073	-0.040	-0.048
CSQ - Vocational	-0.023	-0.150	-0.775*	0.035	-0.072	0.321	0.052	-0.139
Eigenvalue	13.074	4.725	3.110	2.334	1.762	1.623	1.359	1.229
Proportion of Variance (Percent)	32.69	11.81	7.77	5.84	4.40	4.04	3.40	3.07

*Scales which primarily define factors.

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semester responded to an EBCE Employer Questionnaire. This section contains a report of the 1973 graduates of the EBCE Program, a report of the attitudes toward the EBCE Program of the first semester students, and reports of the attitudes toward the EBCE Program of parents and employers.

A. Attitudes of 1973 Graduates Toward the EBCE Program

1. Administration and Description of Questionnaires

A questionnaire (see Appendix A-1) was sent to 44 1973 graduates in December of 1973. Twenty-five of the 44 graduates responded to the initial request. A second letter and questionnaire were sent to the non-respondents on January 25, 1974. The second mailing resulted in nine more returns. This report is a summary of the results of 34 of a possible 44 questionnaires returned by the 1973 graduates.

The EBCE Graduate Questionnaire contains three parts. The first part (white section) is a general section consisting of ten questions used to describe characteristics of the total sample. The second part (blue section) contains 18 questions designed to elicit information concerning students' present positions, attitudes toward those positions, salary levels, and how beneficial EBCE had been to them. The third part (green section) has nine questions and asks for information about present and future plans for training, difficulty in getting into school, and the effect of EBCE on chosen career.

The general section was completed by all students. The green section was completed only by those students receiving further

Table 2-11

Summary of EBCE Graduate Questionnaire
(n=34)

1. Marital Status

28 Single
2 Engaged
4 Married
0 Married, Separated
0 Divorced

2. How many full time jobs have you had?

11 None
15 One
3 Two
4 Three
1 Four or More

3. With whom do you live?

25 Parents
1 Relations
2 Friend(s)
1 Alone
4 Husband or wife

4. How often have you voted in a public election?

16 None or not old enough
8 Once
4 Twice
2 Three or more times

5. Are you a volunteer worker for organizations?

5 Yes
8 No, but I'd like to
21 No

6. When you look back and compare the course of your career so far with people about your age, are you

	Frequency						
	Much Less Satisfied			Much More Satisfied			
	1	2	3	4	5	$\bar{x}$	SD
Respondents going to school only	1	0	4	5	0	3.30	0.95
Respondents working only	0	1	5	4	3	3.69	0.95
Respondents work and going to school	0	0	1	2	3	4.33	0.82
Respondents neither working or going to school	0	2	0	1	2	3.60	1.52

Table 2-11 (Continued)

7. When you compare how the rest of your career is likely to turn out with how the careers of people about your age are likely to turn out, are you:

	Frequency						
	Much Less Satisfied			Much More Satisfied			
	1	2	3	4	5	$\bar{x}$	SD
School only	0	0	2	4	4	4.20	0.79
Work only	0	1	4	5	3	3.77	0.93
School and Work	0	0	2	3	1	3.83	0.75
Neither	0	1	1	3	0	3.40	0.89

8. Show how satisfied you are with each of these types of career achievement.

	Frequency					
	Very Dissatisfied			Very Satisfied		
	1	2	3	4	$\bar{x}$	SD
School only						
a. Certainty of my career goals	1	1	6	2	2.90	0.88
b. Achievement of my career goals	0	4	4	2	2.80	0.79
c. Overcoming of difficulties in my career	0	2	6	0	2.75	0.46
d. Path followed toward career goals	2	0	5	3	2.90	1.10
e. Speed moved toward career goals	2	3	2	2	2.44	1.13
Work only						
a. Certainty of career goals	0	3	4	6	3.23	0.83
b. Achievement of career goals	0	4	5	4	3.00	0.82
c. Overcoming of difficulties	0	1	7	3	3.15	0.55
d. Path followed toward career goals	0	2	5	4	3.18	0.75
e. Speed moved toward career goals	0	4	6	3	2.92	0.76
School and work						
a. Certainty of career goals	0	0	4	2	3.33	0.52
b. Achievement of career goals	0	1	4	1	3.00	0.63
c. Overcoming of difficulties	0	1	2	3	3.33	0.82
d. Path followed toward career goals	0	1	3	2	3.17	0.75
e. Speed moved toward career goals	1	0	3	2	3.00	1.10
Neither work nor school						
a. Certainty of career goals	0	2	1	2	3.00	1.00
b. Achievement of career goals	1	1	1	2	2.80	1.30
c. Overcoming of difficulties	1	2	0	2	2.60	1.34
d. Path followed toward career goals	1	2	1	0	2.00	0.82
e. Speed moved toward career goals	1	2	2	0	2.20	0.84

Table 2-11 (Continued)

9. Show how much effect the EBCE program may or may not have had on you.

	Frequency					
	Strongly Disagree 1	2	3	Strongly Agree 4	$\bar{x}$	SD
EBCE helped:						
School only						
a. Prepare me for work	1	1	4	3	3.00	1.00
b. Prepare me for college	1	2	3	4	3.00	1.05
c. Me become a better person	0	4	4	2	2.80	0.79
d. Develop my mind	1	3	5	1	2.60	0.84
e. In personal adjustment	0	3	5	2	2.90	0.74
Work only						
a. Prepare me for work	0	0	8	5	3.38	0.51
b. Prepare me for college	1	3	7	1	2.67	0.78
c. Me become a better person	0	0	10	3	3.23	0.44
d. Develop my mind	0	0	6	6	3.50	0.52
e. In personal adjustment	0	0	6	7	3.54	0.52
School and Work						
a. Prepare me for work	0	0	3	3	3.50	0.55
b. Prepare me for college	0	0	5	1	3.17	0.41
c. Me become a better person	0	0	1	5	3.83	0.41
d. Develop my mind	0	0	1	5	3.83	0.41
e. In personal adjustment	0	0	2	4	3.67	0.52
Neither School nor Work						
a. Prepare me for work	0	1	2	2	3.20	0.84
b. Prepare me for college	1	1	2	0	2.25	0.96
c. Me become a better person	0	0	3	2	3.40	0.55
d. Develop my mind	0	0	2	3	3.60	0.55
e. In personal adjustment	0	0	2	3	3.60	0.55

training. The blue section was completed by all students presently working. There were, therefore, four types of returns: those students completing only the general section and the green section, those students completing only the general section and the blue section, those students completing all three sections, and those students completing only the general section. Table 2-11 is a summary of responses to selected questions and is organized to present the different responses of each respondent group.

2. Findings

Items 6 and 7 attempted to determine how the graduates felt about the past and future course of their careers. The mean response was "as satisfied" or "more satisfied" in every case. However, those students who were working and going to school were much more satisfied than the other groups on the course their career had taken so far. When queried on the future of their career, the students only going to school were most satisfied whereas those students neither going to school nor working were least satisfied.

Item 8 sought information about various aspects of career achievement. The trend of the item means indicated that the students going to school and working were most satisfied with their career achievement whereas those students neither going to school nor working were least satisfied. All groups were least satisfied with the speed with which they have moved toward their career goals. Students neither going to school nor working were somewhat dissatisfied with

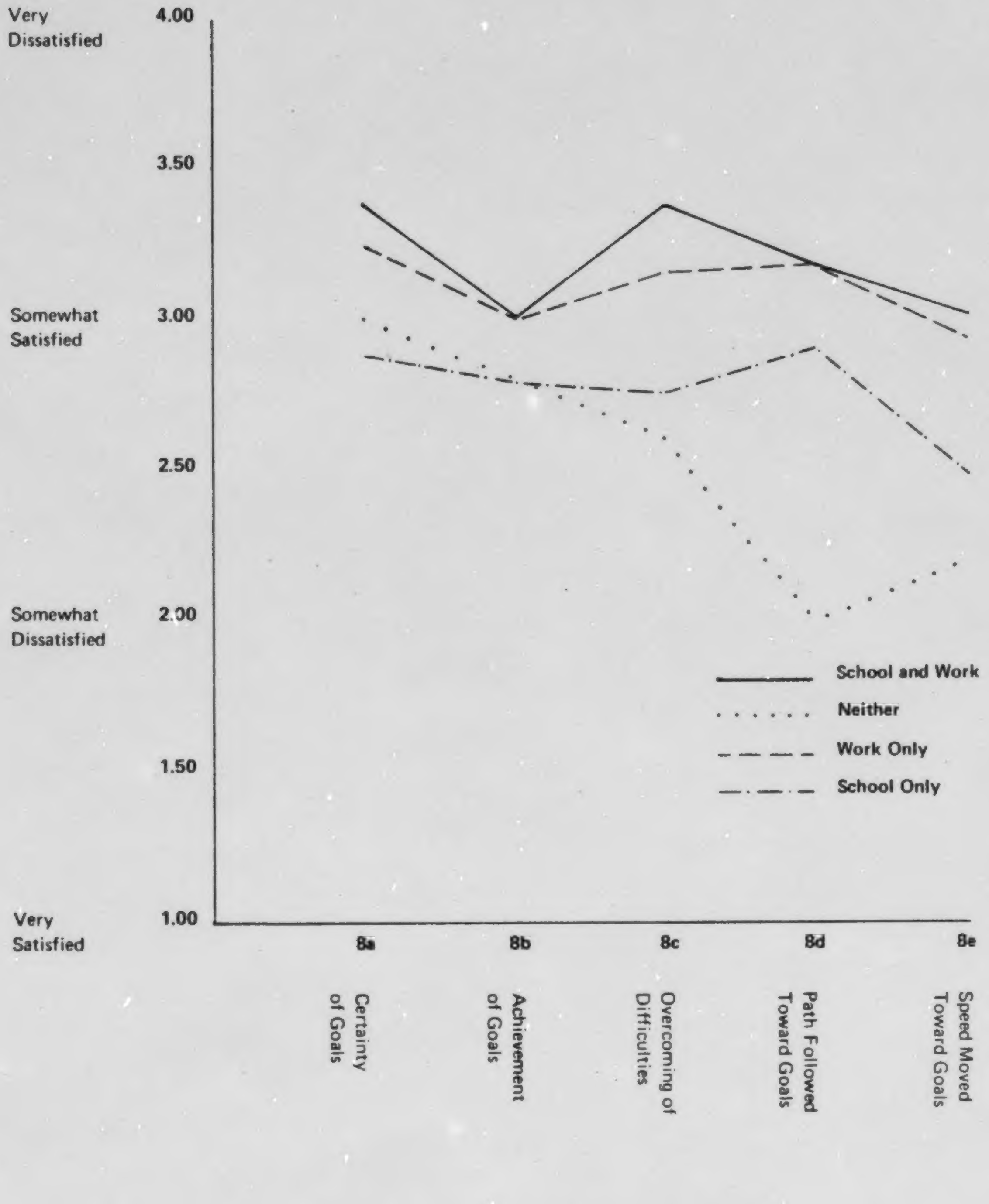

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Figure 2-12

Attitude of EBCE Graduates Toward Career Achievement

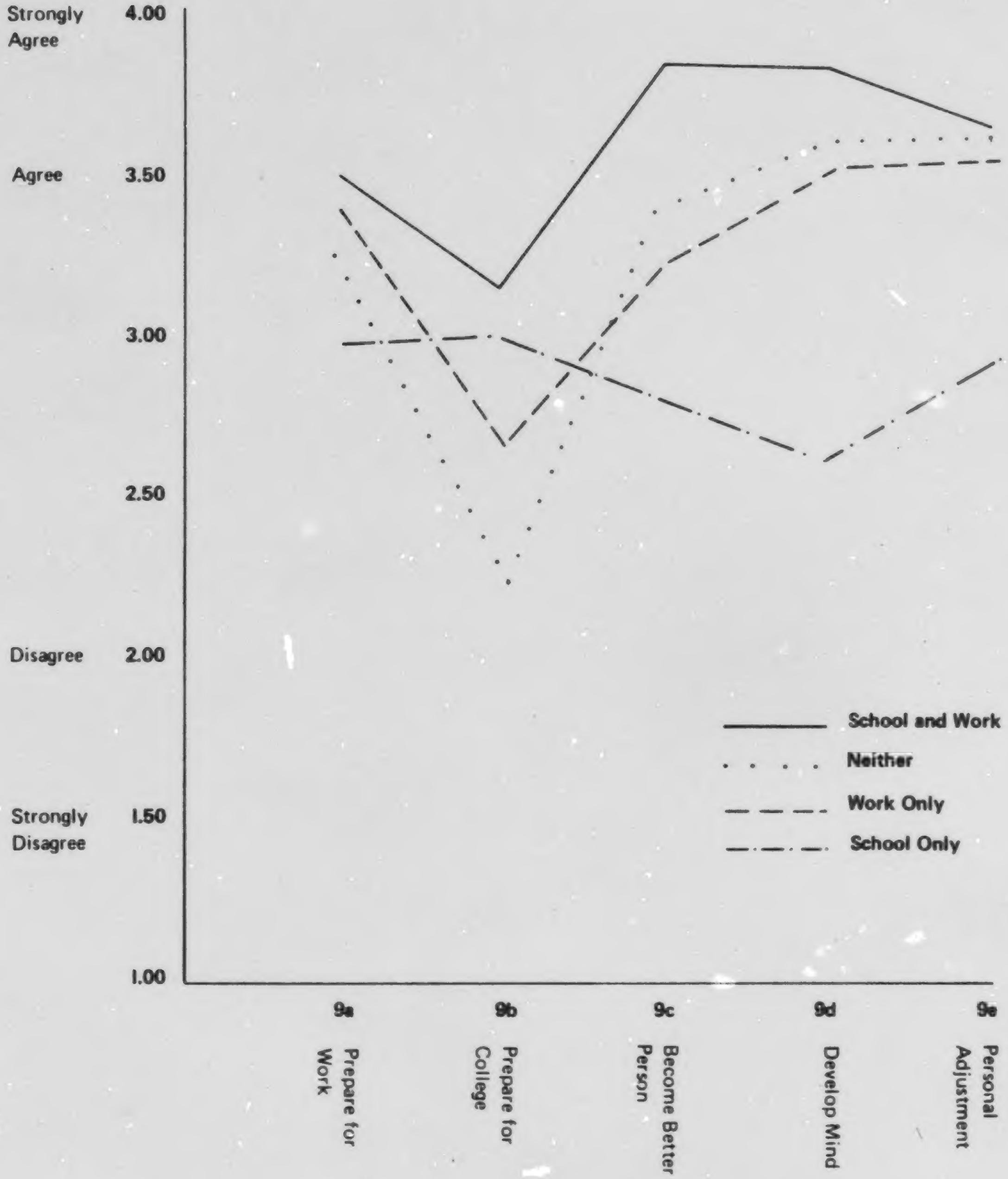

Figure 2-13

Indications of How EBCE Assisted Graduates

Table 2-14

Summary of Post High School Training Questionnaire
(n=16)

1. What type of training program are you now participating in?

School Only	School and Work	
9	3	4-year college or university
0	0	junior or community college
1	1	vocational or technical school
0	0	business school
0	0	trade school

2. What is the main training program you plan to complete?

School Only	School and Work	
2	2	some college
0	0	junior or community college
0	0	vocational or technical school
0	0	trade or business school
3	0	4-year college
3	2	Master's degree
0	1	Doctor's degree

3. How much difficulty did you have in getting in the school?

School Only	School and Work	
10	6	None
0	0	Some
0	0	A great deal

4. What is your main reason for going to school?

School Only	School and Work	
9	4	To pursue a chosen career
1	1	To find a career
0	0	Could not find work
0	0	Did not know what else to do
0	0	Parent or friends pressure

5. How well did the EBCE program prepare you for your training program?

School Only	School and Work	
4	5	Very helpful
5	1	Somewhat helpful
1	0	Not helpful

Table 2-15

Summary of EBCE Graduate Employment Questionnaire
(n=19)

1. How many full time jobs (30 or more hours per week) have you held since you left the EBCE program?

Work Only	Work and School	
0	3	None
7	2	1 full-time job
2	1	2 full-time jobs
4	0	3 or more full-time jobs

2. How closely did your first job after graduating relate to your EBCE experience?

Work Only	Work and School	
2	3	I was employed in an occupation in which I had EBCE experiences.
2	2	I was employed in a related occupation.
8	1	I was employed in a completely different occupation.

3. Did the EBCE program adequately prepare you for your first job?

Work Only	Work and School	
10	5	Yes
3	1	No

4. What was your beginning hourly wage on the first job you had after graduation?

Work Only	Work and School	
0	0	$1.59 or less per hour
9	5	$1.60 to $1.99 per hour
1	1	$2.00 to $2.49 per hour
2	0	$2.50 to $2.99 per hour
1	0	$3.00 to $3.99 per hour
0	0	$4.00 or more per hour

5. How did you get your first job after leaving the EBCE program?

Work Only	Work and School	
11	2	I got the job myself
0	1	My family or friends helped me get the job.
2	1	The EBCE program helped me get the job.
0	0	An employment agency helped me get the job.

Table 2-15(Continued)

9. What is your present hourly wage?

Work Only	Work and School	
0	0	$1.59 or less per hour
7	4	$1.60 to $1.99 per hour
1	0	$2.00 to $2.49 per hour
3	2	$2.50 to $2.99 per hour
0	0	$3.00 to $3.99 per hour
1	0	$4.00 or more per hour

10. What is your main reason for working?

Work Only	Work and School	
4	2	Support self or family
2	2	Experience
3	0	To have a career
3	0	It's interesting

11. Would you like to work at your present job 5 years from now?

Work Only	Work and School	
3	0	Definitely
1	2	Probably
2	0	Uncertain
0	0	Probably not
7	4	Definitely not

12. How many hours do you work a week (average)?

Work Only	Work and School	
0	0	1-4 hours
1	1	5-10 hours
0	0	11-20 hours
1	2	21-30 hours
8	1	31-40 hours
2	2	over 40 hours

13. How much difficulty did you have getting work?

Work Only	Work and School	
8	3	No difficulty
5	3	Some difficulty
0	0	Much difficulty

Table 2-15 (Continued)

14. Would you rather have some other job?

Work Only	Work and School	
6	2	Yes
7	4	No

15. Have there been any jobs you tried for but didn't get?

Work Only	Work and School	
7	3	Yes
6	2	No

Table 2-15 (Continued)

16. Below are listed some items describing various aspects of jobs. Please circle for each item, the number that best describes how satisfied you are with this aspect of your present job.

	Work Only							Work and School						
	Frequency							Frequency						
	Very Dissat. 1	2	3	4	Very Satis. 5	$\bar{x}$	SD	Very Dissat. 1	2	3	4	Very Satis. 5	$\bar{x}$	SD
a. Earnings	2	5	3	2	1	2.62	1.15	1	0	1	2	2	3.67	1.37
b. The duties of the job	0	3	1	5	4	3.77	1.12	0	1	1	2	2	3.83	1.07
c. Job security	1	3	1	2	6	3.69	1.43	0	0	1	1	4	4.50	0.76
d. The amount of responsibility I have	0	3	1	2	7	4.00	1.24	0	0	2	1	3	4.17	0.90
e. The amount of variety in my work	1	2	2	2	6	3.77	1.37	1	0	2	0	3	3.67	1.49
f. The amount of prestige I have	0	4	0	3	6	3.85	1.29	0	0	2	3	1	3.83	0.69
g. The degree of difficulty of my work	0	2	3	4	4	3.77	1.05	0	0	2	2	2	4.00	0.82
h. The work load	1	2	2	2	5	3.67	1.37	0	0	2	1	3	4.17	0.90
i. Opportunity for promotion or advancement	3	3	0	0	6	3.25	1.79	2	0	0	1	2	3.20	1.83
j. Benefits (insurance, sick pay, pension plan, etc.)	3	1	1	1	6	3.50	1.71	1	0	2	0	2	3.40	1.50
k. Opportunities to use my initiative or judgment	2	4	1	1	5	3.23	1.58	1	1	1	1	2	3.33	1.49
l. Opportunities to use my knowledge and ability	3	3	2	1	4	3.00	1.57	1	1	0	2	2	3.50	1.50
m. Opportunities to share interests with those in my line of work	0	2	4	3	4	3.69	1.07	0	1	1	1	3	4.00	1.15
n. Getting along with fellow workers	0	0	0	2	11	4.85	0.36	0	0	0	2	4	4.67	0.47
o. Getting along with those under me	0	0	0	1	9	4.90	0.30	0	0	1	2	3	4.33	0.75
p. Getting along with other people I meet in my work	0	0	0	4	9	4.69	0.46	0	0	0	3	3	4.50	0.50
q. The kind of supervisor I have	1	0	2	0	9	4.33	1.25	2	0	0	1	2	3.20	1.83
r. Opportunities to manage or supervise other people and activities	1	3	2	3	3	3.33	1.31	0	1	2	1	2	3.67	1.11
s. The degree to which my job enables me to live the kind of life I want	3	2	2	2	3	3.00	1.53	2	0	0	1	2	3.20	1.83
t. Opportunities to benefit others through my work	1	2	1	1	7	3.92	1.44	1	0	2	1	2	3.50	1.38
u. Physical working conditions	2	2	1	0	8	3.77	1.62	1	0	0	2	1	3.50	1.50
v. Opportunities to be creative and inventive	5	1	3	3	1	2.54	1.39	1	0	1	1	2	3.60	1.50
w. Opportunities to do a good job	1	1	0	0	10	4.42	1.32	1	0	1	1	3	3.83	1.46
x. My skill at working with people	1	0	0	2	9	4.50	1.12	0	0	1	2	3	4.33	0.75

the path they have followed toward their career goals (see Figure 2-12).

Item 9 sought information on the effect of the EBCE Program on students. The trend of the item means indicated that the students going to school and working agreed very strongly that EBCE had a positive effect on them. Those students only going to school were least positive on all concepts except preparation for college. Those students neither going to school nor working were somewhat negative on the extent which EBCE prepared them for college (see Figure 2-13).

Sixteen students responded to the Post High School Training Questionnaire (see Table 2-14). Twelve of the 16 students were going to a four year college or university, and two of the students were going to a vocational or technical school. Four students plan to complete some college; three plan to attend four years of college; and one plans to complete a doctor's degree. All respondents indicated they were either going to school full time (ten students) or going to school and working (six students). None of the students had difficulty getting into school. Thirteen were going to school to pursue a chosen career whereas two of the students were trying to find a career. Fifteen students felt that the EBCE Program had been at least somewhat helpful in preparing them for their training program. Only one of the sixteen felt the EBCE Program had not been helpful.

According to the EBCE Graduate Employment Questionnaire (see Table 2-15), nineteen students were either working full time (13 students) or working and going to school (6 students). The respondents indicated in Item 3 that ten of the job sites were either sites in which they had an EBCE placement or were related sites; nine indicated they were working in a completely different occupation. Fifteen students indicated that the EBCE Program did adequately prepare them for their first job. Only three of the respondents in Item 5 indicated that the EBCE Program helped them get their first job. In Item 2, nine respondents indicated that their first job after graduation was the same or similar to the experience sites in which they were placed while in the program; nine others indicated that their first job was completely different. Eleven of the respondents indicated in Item 11 that they would not like to work in their present job five years from now. Items 13 and 15 provided information on the degree of difficulty the students had getting work. Eleven indicated they had no difficulty whereas eight had some difficulty. Ten of 18 had been turned down for a job for which they had applied. The responses to Item 16 indicated that the students were quite satisfied with most aspects of their work. They were least satisfied with salary and the amount of initiative or creativity they were allowed on the job.

Students had a chance to respond to an open-ended question soliciting their thoughts about changes that should be made in the EBCE Program. Although the responses in general were very positive, there was a preponderance of respondents indicating a need for more sites, a chance to be placed at more sites, and a chance to be in the program for a greater length of time.

Table 2-16

Summary of Data From Student Attitude Questionnaire
(n=44)

	Frequency					Mean	Standard Deviation
	Definitely No 1	2	3	4	Definitely Yes 5	$\bar{x}$	SD
1. Have you liked attending the Career Education Program?	0	0	2	16	26	4.55	.59
2. If you had it to do over again, do you think you would decide to participate in the Career Education Program?	0	0	3	14	27	4.55	.63
3. Have the activities available in the Career Education Program been interesting to you?	0	1	6	20	17	4.20	.76
4. In the Career Education Program have you felt that you could progress at your own rate?	0	2	1	20	21	4.36	.75
5. Have you seen much of a relationship between your activities in the learning center and the careers you have learned about.	0	2	8	20	14	4.05	.83
6. Do you get enough feedback about how well you are doing in the program?	2	4	8	11	19	3.93	1.19
7. Have you had enough choice in deciding the amount of time you spend at employer sites?	2	3	1	17	20	4.16	.99
8. Have you had enough choice in deciding the amount of time you spend in learning academic subjects?	1	3	2	23	15	4.09	.94
9. Have you had enough choice in deciding what you do at employer/resource sites?	0	2	11	18	13	3.95	.86
10. Have you had enough choice in selecting the types of employer/resource sites you visit?	0	2	2	13	26	4.47	.80
11. Do most people receive much satisfaction from their work?	0	4	10	22	8	3.77	.86
12. Do you think that if a person works hard enough, he can achieve anything?	2	1	4	14	23	4.25	1.04
13. Do you think that the main reason a person works is to earn enough money to live?	4	8	9	17	6	3.30	1.19
14. In general, are you looking forward to working in a job?	0	1	8	12	23	4.30	.85
15. Do you think you have much choice of occupations?	0	1	8	16	18	4.19	.82
16. In general, were the employer/resource personnel involved in the Career Education Program aware of your needs and interests?	2	6	10	14	12	3.64	1.16

Table 2-16 (Continued)

	Frequency					Mean	Standard Deviation
	Definitely No 1	2	3	4	Definitely Yes 5	$\bar{x}$	SD
17. In general, at employer/resource sites did you get to actually do things, rather than just listen?	1	1	2	16	24	4.39	.87
18. In general, have the employer/resource sites you've visited been interested in the Career Education Program?	0	3	4	21	16	4.14	.85
19. In general, have you felt welcome at the employer/resource sites?	0	0	6	19	19	4.30	.70
20. Do most of the employer/resource sites you have worked with let you know how you're progressing?	6	9	9	15	5	3.09	1.25
21. Through your experiences in the Career Education Program have you learned a lot about opportunities for the future?	0	2	3	18	21	4.32	.80
22. Do you plan to get a secondary school diploma?	0	0	3	0	41	4.86	.51
23. Would you say the Career Education Program has helped you form career plans?	1	0	4	12	27	4.48	.71
24. Would you say you've learned a lot while attending the Career Education Program?	0	0	3	20	21	4.41	.62
	Poor 1	2	3	4	Excellent 5	$\bar{x}$	SD
25. How well organized and coordinated do you think the Career Education Program has been?	1	6	7	19	11	3.75	1.06
26. How would you rate the general quality of the Career Education Program staff?	0	0	10	14	20	4.23	1.18
27. How would you rate the personel counseling available in the Career Education Program?	0	1	8	9	25	4.35	.87
28. How would you rate the career counseling available in the Career Education Program?	0	1	8	15	19	4.21	.83
29. How would you rate the general quality of the Career Education Program employer/resources you've worked with?	0	1	9	21	13	4.05	.78
	Not At All Important 1	2	3	4	Extremely Important 5	$\bar{x}$	SD
30. How important was each of the following factors in deciding to join the Career Education Program?							
a. I wanted more freedom/independence.	3	3	8	9	21	3.95	1.26

Table 2-16 (Continued)

	Frequency					Mean	Standard Deviation
	Not At All Important 1	2	3	4	Extremely Important 5	$\bar{x}$	SD
b. I wanted to choose my own learning style.	1	2	5	18	18	4.14	.95
c. I wanted to learn about careers.	1	0	4	9	30	4.52	.85
d. I didn't like my previous school.	6	7	12	9	10	3.23	1.34
e. I wanted to prepare for a job.	1	1	4	14	24	4.34	.91
f. I was bored with school	6	7	9	6	16	3.43	1.47
g. I heard the Career Education Program was easy.	17	6	7	10	3	2.44	1.40
	Much Less 1	2	About The Same 3	4	Much More 5	$\bar{x}$	SD
31. In comparison with regular schools, how much opportunity did the Career Education Program provide you for learning about occupations?	0	0	1	5	38	4.84	.43
32. In comparison with regular schools, how much opportunity did the Career Education Program provide you for general learning?	0	5	12	18	9	3.70	.93
33. In comparison with past experiences in regular schools, how motivated are you to learn in the Career Education Program?	0	1	6	15	21	4.30	.80

34. During this school year have you worked outside of home for money?

A. No	18
B. Yes, less than 10 hours a week.	7
C. Yes, between 10 and 20 hours a week.	11
D. Yes, between 20 and 30 hours a week.	1
E. Yes, more than 30 hours a week.	5

Table 2-16 (Continued)

35. Below are listed several areas of possible importance for a student to learn. Please rate each in terms of how important you feel it is for a student to learn, and how well you feel the program is accomplishing each.

	How Important Do You Feel This Learning Is?							How Effective Do You Feel the Project Has Been in Accomplishing This Learning?						
	Frequency					Mean	Standard Deviation	Frequency					Mean	Standard Deviation
	Not Important 1	2	3	4	Highly Important 5	x̄	SD	Not Effective 1	2	3	4	Highly Effective 5	x̄	SD
Students learn to:														
a. Perform specific occupational skills	0	0	4	8	32	4.64	.65	0	1	7	22	14	4.11	.75
b. Be punctual and organize their time.	0	1	4	18	21	4.34	.75	0	2	15	17	10	3.80	.85
c. Assume responsibility for themselves.	0	1	2	8	33	4.66	.68	0	1	3	15	25	4.45	.73
d. Make decisions and follow through.	0	0	0	13	31	4.70	.46	0	1	4	16	23	4.39	.75
e. Communicate with others in a mature way.	0	0	1	16	27	4.59	.54	0	1	3	23	17	4.27	.69
f. Be aware of more career opportunities.	0	0	1	10	33	4.73	.50	0	0	3	12	29	4.59	.62
g. Work with others	0	0	3	13	28	4.57	.62	0	0	2	13	29	4.61	.58
h. Evaluate their own work.	0	1	4	14	25	4.43	.76	0	1	6	24	13	4.11	.72
i. Perform basic academic skills.	1	0	7	18	18	4.18	.87	0	0	9	17	17	3.95	1.59
j. Think through and solve problems	0	0	3	12	29	4.59	.62	0	1	5	21	17	4.23	.74
k. Have a positive attitude toward self.	0	0	0	10	34	4.77	.42	0	2	7	15	19	4.19	.88
l. Have a positive attitude toward work.	0	0	1	13	30	4.66	.53	0	1	7	17	19	4.23	.80
m. Have a positive attitude toward learning.	0	0	3	12	28	4.58	.63	0	1	7	16	18	4.21	.81
n. Prepare for further education.	1	1	7	12	23	4.25	.97	1	2	6	17	18	4.11	.97
o. Improve interpersonal and social skills	0	0	4	12	26	4.52	.67	1	1	10	11	19	4.10	1.01

The 1973 graduates were very positive toward the effects of the EBCE Program. Those students going to school and working responded most positively; those neither going to school nor working responded least positively. It could be hypothesized that those respondents working and going to school know their career goals. There is some evidence to indicate that those respondents neither working nor going to school have not firmly established their goals and therefore are not as satisfied.

B. EBCE Student Attitudes at Mid-Year 1973-74

1. Administration and Description of Questionnaire

The Student Opinion Survey (see Appendix A-2) was administered to all EBCE students (n=44) who had been in the program for one semester during the week of January 21-25. The questionnaire was administered to students in large group settings. Students who were unclear about any item were able to ask for clarification.

The Student Opinion Survey contains 37 items which attempt to determine EBCE student attitudes toward many aspects of the EBCE Program. Students responded to all items except Items 34, 35, and 36 by marking a five point Likert type scale. Lower numbers indicate negative trends; higher numbers, positive trends. Item 34 attempts to determine the number of hours students worked during the school year. Item 35 asks for information on how a job interferes with other activities. Item 36 requests information concerning changes that students would like to see in the Career Education Program. A summary of the data on selected questions is in Table 2-16.

2. Findings

In general the data indicated that the students were very positive about all aspects of the EBCE Program. It is worth noting the items to which the students reacted most positively and those items to which the students reacted least positively.

Students had very positive feelings toward attending EBCE (Item 1) and toward further participation (Item 2). The mean for each of these items was 4.55 of a possible high of 5.00. Item 22 indicated that students were very sure about their plans to get a secondary diploma. The mean for this item was 4.86.

Students were least positive toward the feedback they have received from the employer sites (Item 20). The frequency distribution on this item indicated that 15 students were not satisfied, 20 students were satisfied, and 9 students were undecided about their satisfaction toward feedback from employer sites. Students also expressed a certain amount of dissatisfaction with the employers' awareness of the students' needs and interests (Item 16). Data from Items 6 and 9 indicated that students were not entirely satisfied with feedback received in general from the program and with the amount of choice they have in deciding employer/resource sites.

Students indicated in Item 30 that the primary reason for joining the EBCE Program was to learn about careers. Although 13 students joined the program because they heard it was easy, this reason was given least frequently.

Items 31, 32, and 33 provided students an opportunity to compare perceptions of the EBCE Program with perceptions of their home schools.

The EBCE students rated the EBCE Program higher than their home school on all three comparisons. Opportunities to learn about occupations was rated highest with a mean of 4.84. Opportunities for general learning was rated lowest with a mean of 3.70.

Item 35 was designed to identify which goals students felt were important for the EBCE Program and then to judge the effectiveness of the EBCE Program on each of the goals. The EBCE students believe that all the stated goals are important. The most important goal, according to the responses, is "to have a positive attitude toward self." The least important goal is "to perform basic academic skills." The students rated highly the effectiveness of the EBCE Program on all the stated goals. According to the students, the EBCE Program is most effective on the goal "to work with others" and least effective on the goal "to be punctual and organize their time."

Students were given an opportunity to suggest changes for the EBCE Program on an open-ended question. The most consistent suggestion (4 of 24) was to change or examine the point system of grading. A second frequently suggested change (3 of 24) was to eliminate the Career LAPS. Students also indicated change was desirable in the number of job sites available to them, information about job sites, and the short length of stay at a job site.

C. Parents' Attitudes Toward EBCE at End of First Semester, 1973-74

1. Administration and Description of Questionnaires

A Parent Opinion Survey (see Appendix A-3) was sent to the parents of each of the 44 students enrolled in the EBCE Program at the end of first semester of the 1973-74 school year. Returns were received from 29 (66%) of the parents surveyed. One of the questionnaires was not included in the tabulations because of the late return.

The purpose of the Parent Opinion Survey is to gather data on parents' perceptions of various aspects of the EBCE Program. The questionnaire contains 25 items; parents responded by marking a five point Likert type scale or by answering open-ended questions. Lower numbers on the Likert scale indicate negative trends; higher numbers, positive trends. Items 4 and 5, open-ended questions, asked parents to describe the weaknesses and strengths of the EBCE Program. Items 12 and 13, also open-ended, requested parents to describe any positive and negative changes in their child as a result of participation in the EBCE Program. Items 21 and 22, which were forced choice, asked for perceptions of child's occupational plans and plans after completing high school. Items 24 and 25, which were open-ended questions, asked parents to indicate how they first heard about EBCE and their opinion on the type of student most likely to benefit from EBCE. A summary of the results from selected questions is in Table 2-17.

2. Findings

The parents were very positive toward all aspects of the EBCE Program, particularly on their feeling about their child's interest in the EBCE Program (Item 3). They were also very definite that they would again permit their child to enroll in the EBCE Program (Item 2).

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Table 2-17

Parent Opinion Survey
(n=28)

	Frequency by Item Choice					Mean	Standard Deviation
	1	2	3	4	5	$\overline{x}$	SD
	Much Worse				Much Better		
1. How well does the Career Education Program compare overall with the past school experience of your daughter or son?	0	1	3	8	16	4.39	0.83
	Definitely No				Definitely Yes		
2. If you had it to do over again, would you want your son or daughter to participate in the Career Education Program?	0	1	1	2	24	4.75	0.70
	Much Worse				Much Better		
3. How well do you think your son or daughter likes the Career Education Program compared with past school experiences?	0	0	1	4	23	4.79	0.50
	Definitely No				Definitely Yes		
6. Have you received enough information about your son or daughter's progress in the Career Education Program?	0	2	5	7	14	4.18	0.98
	Much Less		About the Same		Much More		
7. In comparison with regular schools how much opportunity did the Career Education Program provide your daughter or son for learning about occupations?	1	0	0	3	24	4.75	0.80
	Definitely Bad		No Effect		Definitely Good		
8. What effect, if any, has the Career Education Program had on helping your son or daughter form career plans?	0	1	7	7	13	4.14	0.93
	Much Less		About the Same		Much More		
9. In comparison with regular schools how much opportunity did the Career Education Program provide your daughter or son for general learning?	0	0	9	8	11	4.07	0.86

Table 2-17 (Continued)

	Frequency by Item Choice					Mean	Standard Deviation
	1	2	3	4	5	$\bar{x}$	SD
	Much Less		About the Same		Much More		
10. In comparison with past experiences in regular schools how motivated is your daughter or son to learn in the Career Education Program?	0	0	3	11	14	4.39	0.69
	Poor				Excellent		
11. How would you rate the approaches to learning used in the Career Education Program?	0	0	5	9	14	4.32	0.77
	Almost Never				Almost Daily		
14. How often does your son or daughter talk to you about what's going on in the Career Education Program?	0	2	2	7	17	4.39	0.92
	Almost Never				Very Frequently		
15. About how often have you had any contact with any Career Education Program staff members?	7	8	8	3	2	2.46	1.20
	None	1	2	3	4 or more		
16. How many meetings have you attended during this school year where other parents of Career Education students were present?	8	14	5	0	1	1.00	0.90
	Poor				Excellent		
17. How would you rate the general quality of the Career Education Program staff?	0	0	3	7	13	4.43	0.73
	Poor				Excellent		
18. How would you rate business and community resources available in the Career Education Program?	0	1	8	5	13	4.11	0.97
	Poor				Excellent		
19. How would you rate your overall relationship with the staff of the Career Education Program?	3	1	8	5	8	3.56	1.33
	Poor				Excellent		
20. How would you rate the enthusiasm of the Career Education Program staff?	1	1	3	8	12	4.16	1.07

Table 2-17 (Continued)

23. Below are listed some areas of possible importance for a student to learn. Please rate each in terms of how important you feel it is for a student to learn, and how well you feel the program is accomplishing each.

	How Important Do You Feel This Learning Is?							How Effective Do You Feel the Project Has Been in Accomplishing This Learning?						
	Frequency					Mean	Standard Deviation	Frequency					Mean	Standard Deviation
	Not Important 1	2	3	Highly Important 4	5	$\bar{x}$	SD	Not Effective 1	2	3	Highly Effective 4	5	$\bar{x}$	SD
Students learn to:														
a. Perform specific occupational skills.	1	0	5	5	15	4.27	1.04	0	5	3	4	14	4.04	1.22
b. Be punctual and organize their time.	0	1	0	4	22	4.74	0.66	0	2	6	9	10	4.00	0.96
c. Assume responsibility for themselves.	0	0	0	2	25	4.93	0.27	0	2	1	8	16	4.41	0.89
d. Make decisions and follow through.	0	0	1	3	23	4.81	0.48	0	2	5	6	14	4.19	1.00
e. Communicate with others in a mature way.	0	0	0	3	24	4.89	0.32	0	0	2	12	13	4.41	0.64
f. Be aware of more career opportunities.	0	0	3	5	19	4.59	0.69	1	0	4	6	16	4.33	1.00
g. Work with others.	0	0	0	6	21	4.78	0.42	0	0	3	4	19	4.62	0.70
h. Evaluate their own work.	0	0	3	4	20	4.63	0.69	1	2	6	7	10	3.88	1.14
i. Perform basic academic skills.	0	0	2	7	18	4.59	0.64	0	1	7	3	13	4.17	1.01
j. Think through and solve problems.	0	0	1	3	23	4.81	0.48	0	2	7	4	13	4.08	1.06
k. Have a positive attitude toward self.	0	0	0	5	21	4.81	0.40	0	0	3	8	14	4.44	0.71
l. Have a positive attitude toward work.	0	0	1	4	22	4.78	0.51	0	3	2	6	15	4.27	1.04
m. Have a positive attitude toward learning.	0	0	1	7	19	4.67	0.55	0	3	3	8	12	4.12	1.03
n. Prepare for further education	0	0	1	7	19	4.67	0.55	1	1	8	8	8	3.81	1.06
o. Improve interpersonal and social skills	0	0	1	6	20	4.70	0.54	0	0	3	11	13	4.37	0.69

Parents were asked to compare the EBCE Program with the regular schools in Items 7, 9, and 10 on opportunities for their child to learn about occupations, opportunities for general learning, and on motivation to learn. Parents responded very favorably to the EBCE Program on all three aspects. They were most positive on the opportunities to learn about occupations and least positive on the opportunities for general learning.

Parents indicated they had very little contact with EBCE staff during the school year. The response to Item 15 indicated very few meetings with staff members. The mean response on a scale of 1 (almost never) to 5 (very frequently) was 2.46. The parents indicated in Item 16 that they had attended an average of one meeting with other parents during the school year.

Parents were asked to rate the importance of a selected number of goals (Item 23). The parents rated all of the goals highly important. They rated the goal, "to perform specific occupational skills," as the least important goal. They rated the goal, "assume responsibility for themselves," as the most important. Parents were also asked to rate the effectiveness of the EBCE Program on each of the goals. They gave the EBCE Program high marks on the effectiveness of accomplishing the goals. Parents rated the EBCE Program most effective in accomplishing the following goals: work with others, positive attitude toward self, communicating in a mature way, and in assuming responsibility for themselves. Parents rated the EBCE Program as least effective on the goal, "prepare for futher education."

Parents were asked to identify the major weaknesses of the EBCE Program. The number of job sites available and the limited depth of experience available at the job site were cited as the major weaknesses. Communication between staff and students or staff and parents was listed three times as a major weakness. Transportation and the depth of the course work were each cited twice as major weaknesses.

Parents listed the following concepts as being the greatest strengths of the program: chance to explore various careers, chance to meet and interact with many different people of the real world, change from the traditional school classroom, and interpersonal development.

D. Attitudes of Participating Employers Toward EBCE at Mid-Year, 1973-74

1. Administration and Description of Questionnaire

Program records were examined to identify which of the 102 EBCE experience sites had received student placements during the first semester of the 1973-74 school year. A total of 53 sites were identified. One of the experience sites had notified EBCE staff that they would be glad to cooperate as a site but that they would not respond to requests for evaluation. Therefore, 52 contact persons were sent a form letter indicating the need for evaluative data and requesting that they give a questionnaire to each of the employees who had worked directly with EBCE students during the school year 1973-74 (see Appendix A-4). Sixteen different sites had returned the completed questionnaire by March 4, 1974. A total of 33 resource person responses were

Table 2-18

Responses from Employer Questionnaire
(n=33)

1. Number of hours typically spent with students.

range - 1 hour - 35 hours per week
mean - 14.38 hours per week

2. Types of service provided to students (frequency by service).

	Yes	No
a. Talk about job opportunities	32	1
b. Talk about students' personal problems	20	13
c. Talk about activities at your site	30	2
d. Tutor in academic area	16	17
e. Evaluate individual student's assignment	22	11
f. Assist student in non-job related assignment	19	14
g. Supervise students on specific job-related task	29	4
h. Help plan student assignments	25	8

4. How did you become involved with CEP?

19 EBCE personnel contacted me.
7 A student talked to me.
1 Another employer talked to me.
12 Company personnel talked to me.

6. Did CEP staff provide you with enough information to help direct students?

25 Yes
6 No

7. Would you recommend to another person that he/she also become involved with CEP?

30 Yes
1 No

9. To what extend has the CEP has an impact on your site?

	How Much Impact				Value of Impact		
	None	Some	Much	Don't Know	Good	Bad	Don't Know
a. Quality of work performed by regular employees	14	13	2	1	15	0	6
b. Amount of work performed by regular employees	12	12	5	2	13	2	6
c. Company hiring practices	19	2	2	5	5	0	8
d. Company training practices	15	7	5	4	11	0	7

Table 2-18 (Continued)

10. Do you think the CEP students are interested in your site?

Frequency						
Definitely No 1	2	3	4	Definitely Yes 5	Mean	SD
4	5	12	6	6	3.03	1.23

11. Do you think the CEP students are interested in the CEP?

Frequency						
Definitely No 1	2	3	4	Definitely Yes 5	Mean	SD
0	4	7	12	9	3.81	0.98

12. How have employees at your site reacted to the CEP?

14 Positive reaction
0 Negative reaction
15 Mixed reaction
0 No reaction
0 Not applicable
1 Don't know

13. In what ways have employees benefited?

3 They haven't benefited.
17 Increased their awareness of youth.
5 Motivated them to further training.
7 Reduced their workload.
9 Increased interest in their own work.
3 I don't know.

14. Do you receive adequate feedback about what happens to the students?

Frequency						
Never 1	2	3	4	Always 5	Mean	SD
15	5	5	2	0	1.78	0.99

15. Do you receive adequate feedback about the effectiveness of your work with the students?

Frequency						
Never 1	2	3	4	Always 5	Mean	SD
14	4	4	6	0	2.07	1.22

18. Do you plan to continue participating in the CEP?

20 Yes 0 No 13 Don't Know

Table 2-18 (Continued)

23. Below are listed some areas of possible importance for a student to learn. Please rate each in terms of how important you feel it is for a student to learn, and how well you feel the program is accomplishing each.

	How Important Do You Feel This Learning Is?							How Effective Do You Feel the Project Has Been in Accomplishing This Learning?						
	Frequency					Mean	Standard Deviation	Frequency					Mean	Standard Deviation
	Not Important 1	2	3	Highly Important 4	5	$\bar{x}$	SD	Not Effective 1	2	3	Highly Effective 4	5	$\bar{x}$	SD
Students learn to:														
a. Perform specific occupational skills	1	4	5	7	14	3.94	1.19	1	2	15	4	6	3.43	1.02
b. Be punctual and organize their time	0	0	3	7	21	4.58	0.66	1	3	11	9	5	3.48	1.00
c. Assume responsibility for themselves	0	0	2	8	23	4.64	0.59	1	4	8	9	7	3.59	1.10
d. Make decisions and follow through	0	0	6	7	19	4.41	0.78	2	3	15	5	4	3.21	1.03
e. Communicate with others in a mature way	0	0	1	12	19	4.56	0.56	1	3	11	7	7	3.55	1.07
f. Be aware of more career opportunities	0	0	5	7	20	4.47	0.75	1	0	10	8	9	3.90	0.99
g. Work with others	0	0	2	9	21	4.59	0.61	2	0	10	8	9	3.76	1.10
h. Evaluate their own work	0	0	6	8	15	4.31	0.79	1	4	15	3	4	3.19	0.98
i. Perform basic academic skills	0	1	5	10	15	4.26	0.85	2	1	14	5	5	3.37	1.06
j. Think through and solve problems	0	0	6	7	19	4.41	0.78	1	3	15	7	3	3.28	0.91
k. Have a positive attitude toward self	0	0	3	7	22	4.59	0.65	1	2	14	7	5	3.45	0.97
l. Have a positive attitude toward work	0	0	2	5	25	4.72	0.57	1	6	8	6	7	3.43	1.18
m. Have a positive attitude toward learning	0	0	1	4	27	4.81	0.46	1	4	12	4	8	3.48	1.13
n. Prepare for further education	1	0	3	5	23	4.53	0.90	2	2	9	6	8	3.59	1.19
o. Improve interpersonal and social skills	0	0	3	11	18	4.47	0.66	1	2	10	12	3	3.50	0.91

received. One other experience site contact person called to say that a student had been placed, but he did not know who the resource person had been.

The Employer Questionnaire attempts to determine employers' perceptions toward various aspects of the EBCE Program. The questionnaire, in addition to a series of background information questions, contains 21 questions. Some are open-ended, some are forced choice, and others ask for Likert scale responses. A summary of the results on selected questions is presented in Table 2-18.

2. Findings

Respondents were generally positive to the EBCE Program. One indicator of the degree of support can be found in the responses to Item 7 of the questionnaire. Resource persons overwhelmingly stated that they would recommend involvement with EBCE to another person. Another indicator is provided by the data from Item 18, "Do you plan to continue participating in the CEP?" Twenty of the respondents indicated yes; the remaining 13 respondents didn't know. It is possible that these 13 were employees who feel that they could not make this decision.

Employers indicated that they spent 14.38 hours per week on the average working with students. The employers provided all of the listed services (Item 2) to the students but primarily mentioned job opportunities, activities at their site, and supervision of students on specific job-related tasks.

More than one half of the respondents indicated that they became involved with EBCE as a result of contacts from EBCE personnel (Item 4). A large number of respondents indicated they became involved with EBCE as a result of company personnel.

Communications between EBCE personnel and employers may be a weakness. Responses to Item 14 indicated there was very little feedback about what happens to students after they leave the site and about the effectiveness of employers' work with students. On a question designed to determine the sufficiency of information received to help direct students (Item 6), most employers indicated that the information was sufficient. The six who responded negatively to the question, however, indicated any information would help.

Respondents were asked about the impact of the students or the program on the resource site in Items 9, 12, and 13. There were indications that the program had provided some positive impact on the experience sites. Respondents particularly indicated positive impact on the amount and the quality of work performed by regular employees. Regular employees also benefited in increasing their awareness of youth, increasing interest in their own work, and decreasing their workload.

Employers perceived that students were neither interested nor disinterested in their sites (Item 10). However, they indicated that the students were interested in the EBCE Program (Item 11).

Employers were asked in Item 17 to rate the importance of selected student goals. The respondents rated all goals as important. Goals ranked the highest were to have a positive attitude toward learning, to have a positive attitude toward work, and to assume responsibility for themselves. Goals ranked lowest were to evaluate their own work and to perform specific occupational skills. The employers were also requested to rate the effectiveness of the EBCE Program in meeting these objectives. Although the employers responded positively, they were not as positive as the students and parents in judging the effectiveness of the EBCE Program. They indicated the program was most effective in making students aware of career opportunities and working with others; it was perceived as least effective in having the students evaluate their own work, make decisions and follow through, and in thinking through and solving problems.

Respondents were asked to identify the greatest strengths and weaknesses of the EBCE Program. The primary strength was that the EBCE Program is a viable alternative to the traditional educational programs. Lack of communications between EBCE staff and employers was cited as the major weakness.

E. Summary of Findings

Data were gathered at mid-year from FY 73 EBCE graduates, FY 74 students, EBCE parents, and from cooperating employers. Data on attitude of students, parents, and employers toward the EBCE Program were emphasized.

The EBCE graduates from FY 73 were very positive toward the EBCE Program. Most of the graduates indicated they had very little difficulty getting work and none reported difficulty in getting into college. Most of the graduates reported that their EBCE experience had been beneficial.

The FY 74 students were very positive toward the EBCE Program. The positive reactions can be generalized to all aspects of the EBCE program with the possible exception of the lack of feedback received from employers and staff relative to the students' performance.

Parents were very positive toward all aspects of the EBCE Program. They were not quite as satisfied with the communications they had received from the EBCE staff.

Employers tended to be positive toward the EBCE Program. They were particularly positive toward the concept of the program. The resource people indicated a lack of communication with EBCE staff on what happens to students or the effectiveness of their work with students.

VII. STATUS OF EVIDENCE CONCERNING EVALUATION HYPOTHESES AT MID-YEAR

None of the fifteen hypotheses listed in part IV of this section can be accepted or rejected at this time. It seems relevant and important, however, to present the status of evidence currently available concerning these hypotheses.

A. Hypotheses Concerning Impact on Student Behavior

No conclusion of program impact on student behavior can be drawn prior to completion of plans in the summative evaluation design, which require post-testing of EBCE students, the Cooperative Work Experience student sample, and the comparison sample of Kanawha County 12th grade students. Rigorous analyses of data will also have to be completed.

The nine hypotheses which deal with program impact are listed below with relevant evidence from the analysis of pre-test data.

1. Hypothesis 1 - EBCE students will become more knowledgeable of the world of work than the students from either comparison group.

There were no significant differences between the EBCE students and the comparison groups on the pre-test of Part 2 of the Career Maturity Inventory (Knowing About Jobs).

2. Hypothesis 2 - EBCE students will be more capable of locating and acquiring work than the students from either comparison group.

This hypothesis cannot be adequately assessed until the summary of 1974. There are no comparison data available at this time. A review of the progress of the FY 73 graduates indicates that most of the graduates had no difficulty getting jobs. Eight of 18 respondents had never been turned down for a job.

3. Hypothesis 3 - EBCE students will do as well as the comparison groups on scholastic growth.

There are no post-test comparison data available at this time. Analysis of the Educational Development Series pre-test data indicates that there was a significant difference only on the English scale among the three groups. This difference was not identified when the Scheffe' test was utilized.

4. Hypothesis 4 - EBCE students will be more positive in their attitude toward the world of work than the students from either comparison group.

The COOP students scored significantly higher than the EBCE students on the pre-test of the Attitude Scale of the Career Maturity Inventory. There are no mid-year comparison data available.

5. Hypothesis 5 - EBCE students will be more capable of planning for their future than the students from either comparison group.

The COOP students scored significantly higher than the EBCE students on the pre-test of Part 4 of the Career Maturity Inventory (Looking Ahead). There are no mid-year data available from the comparison groups.

6. Hypothesis 6 - EBCE students will be more capable of solving the problems confronting them in reaching their goals than the students from either comparison group.

A review of the scores on Part 5 of the Career Maturity Inventory (What Should They Do) indicated a signficant difference among the three groups. This difference was not identified when the Scheffe' test was utilized. There are no mid-year data available from the comparison groups.

7. Hypothesis 7 - EBCE students will become more capable of appraising the career-relevant capabilities of others than the students from either comparison group.

There was no significant difference between the EBCE students and either comparison group on the pre-test of Part 1 of the Career Maturity Inventory (Knowing Yourself). There are no mid-year data available from the comparison groups.

8. Hypothesis 8 - EBCE students will be more able to choose realistic career goals than the students from either comparison group.

The random sample of 12th grade students scored significantly higher on the pre-test of Part 3 of the Career Maturity Inventory

(Choosing a Job) than the EBCE students. There were no mid-year data available from the comparison groups.

9. Hypothesis 15 - There will be a lower relative frequency of school dropouts from the EBCE project than from the Kanawha County Schools.

No data have at this time been received on this variable.

B. Hypotheses Concerning Attitudes Toward the EBCE Program

Tentative conclusions can be drawn concerning the attitudes of certain key groups toward the EBCE Program. Parents, participating employer contact and resource poeple, fall entrants, and 1973 EBCE graduates have expressed positive opinions about the program and its effects on student behavior. Non-questionnaire data from labor unions suggest positive attitudes. While still incomplete, the available data constitute evidence pointing toward acceptance of hypotheses 9, 10, 11, and 12, which are listed below with supporting evidence.

1. Hypothesis 9 - EBCE parents will have a positive attitude toward the EBCE Program.

A review of the data from the Parent Opinion Survey administered at mid-year indicated that the parents were very positive toward the EBCE Program.

2. Hypothesis 10 - Various levels of employers (ie. resource persons, contact persons, and managers) will have a positive attitude toward the EBCE Program.

A review of the data from the Employer Questionnaire, administered at mid-year, indicated that the employer resource people have a positive attitude toward the EBCE Program.

3. Hypothesis 11 - EBCE students will have a positive attitude toward the EBCE program.

A review of the data from the Student Opinion Survey, administered at mid-year, indicated that the students are very positive in their attitude toward the EBCE Program. A review of the data from the EBCE Graduate Questionnaire, administered at mid-year, indicated that the 1973 EBCE graduates are very positive in their attitude toward the EBCE Program.

4. Hypothesis 12 - Labor union officials will have a positive attitude toward the EBCE Program.

There are indications that many labor union officials have a positive attitude toward the EBCE Program. Thirty-six labor unions work directly with the EBCE Program. Two labor union officials are active in the EBCE Community Advisory Council.

C. Hypotheses Concerning Program Endorsement

The EBCE Program is operating in Kanwawha County, West Virginia, for the current school year (1973-74) with the endorsement of the Board of Education of Kanawha County and the Superintendent, Dr. Kenneth Underwood. In addition, the program operates with the endorsement of the West Virginia State Department of Education. The status of hypotheses concerning program endorsement for 1974-75 are listed below with appropriate statements of evidence.

1. Hypothesis 13 - Kanawha County schools will endorse the EBCE Program for the 1974-75 school year.

No official endorsement by the Kanawha County schools has been received at this time. Kanawha County School Board members and officers, and high school principals, counselors, and teachers cooperate at many levels of program operation, planning, and policy determination.

2. Hypothesis 14 - West Virginia State Department of Education officials will endorse the EBCE Program.

No official endorsement of State Department of Education officials has been received at this time. Officials are cooperative and actively serve on the EBCE Community Advisory Council.

SECTION 3

Interim Report of
Experience Based Career Education
Formative Evaluation

To

March 1, 1974

I. INTRODUCTION

"Evaluation is the process of delineating, obtaining, and providing information for judging decision alternatives."[5] A major component of evaluation is now commonly called formative evaluation, which is the assessment of the value of program components to insure that every component works as well as possible, both in isolation and as it meshes with other components. It is a process which seeks information to answer the question, "Is this the best way we know to do this?"

In considering the various components of a program, the essential formative evaluation questions are these: Is it necessary? How good is it? How can it be improved?

The process of formative evaluation can begin with an analysis of program systems which will identify critical components for which formative evaluation is essential (or at least desirable). On the other hand, it is impossible to specify in advance all the problems which will arise in implementing a program. Flexibility is essential for carrying out the trouble-shooting efforts in formative evaluation.

If one focuses on the AEL/EBCE Program as a means to deliver services to students, one can proceed to analyze the program in terms of a set of interrelated subsystems necessary to provide those services. Such an analysis serves to highlight the critical aspects of the program, leading to the establishment of priorities for formative evaluation. From this analysis arises a set of information needs. Specification of these needs, in turn, suggests the kinds of information gathering activities which must be established.

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[5] Daniel L. Stufflebeam, et al, Educational Evaluation and Decision Making. Ithaca, Illinois: F. E. Peacock Publisher, Inc., 1971.

Results of formative evaluation of the AEL/EBCE Program have been designed to have an impact on the audiences served, the timelines of information, and program decision-making. The first sources that the formative evaluation reports addressed were the audiences served: the project director, program developers, and operational managers. In order to serve these audiences effectively, the information was provided early enough (timelines) to affect program operations before revision/recycling occurred.

Formative evaluation of the AEL/EBCE Program has been designed to affect program decision-making. Most of the formative evaluation reports were presented to the Project Director and the Director of Stabilization. Each report was then forwarded to the appropriate persons.

II. ORGANIZATION

This section of the report is organized to provide a logical development of reporting of AEL/EBCE formative evaluation. Part III deals with the design of the Formative Evaluation Plan. Part IV discusses instrumentation and testing procedures. Part V covers the student populations used in the formative evaluation. Part VI identifies and overviews each component of the AEL/EBCE Program. The internal process and the interdependence of each subsystem are described immediately after the overviews. Part VII presents the formative evaluation findings for each subsystem with major emphasis directed toward the questions outlined in the Formative Evaluation Plan. Conclusions, recommendations and action taken to date by the staff are included. Part VIII presents a discussion of the Career Maturity Inventory pre-test results which indicate major questions that should be addressed in the formative evaluation.

III. DESIGN OF FORMATIVE EVALUATION

The design for formative evaluation of the AEL/EBCE Program between December 1 and January 31, 1973 can be found in the Formative Evaluation Plan, submitted to NIE on November 1, 1973. All questions relating to formative evaluation design can be answered by referring to this document.

IV. INSTRUMENTATION AND TESTING PROCEDURES

Each instrument used in AEL/EBCE's formative evaluation has a cover sheet containing the following information: instrument number, title, format, subjects and sampling, administration schedule, reliability and validity tests needed, and the key to questions contained in the Formative Evaluation Plan. All instruments are contained in Appendix B of this document. Questions about instrumentation and testing procedures should be referred to the appropriate cover sheets of these instruments.

V. STUDENT POPULATIONS

The student sample for the AEL/EBCE Program was drawn from seniors in the Kanawha County School System who volunteered for the program.

This group is the same as the experimental group described in part V of Section 2 on Summative Evaluation in this document. All questions about student populations for formative evaluation should be addressed by referring to the section cited above.

VI. OVERVIEW OF AEL/EBCE PROGRAM

A. Overview of AEL Experience-Based Career Education System

AEL/EBCE is an alternative educational program in which volunteer students engage in learning experiences at places of employment and other community sites instead of in traditional classrooms.

Students were recruited in September and in January from high schools in the Kanawha County School System. Most are high school seniors within five credits of graduation. Interested students and their parents attended a group interview to acquaint them with the program and to obtain information about student interests and needs. Program staff evaluated these interests and needs (including high school transcripts); those students who met the selection criteria were notified of their acceptance.

In September the students' year began with a ten-day orientation period. In January, students had a five-day orientation period. Orientation included an overview of the content areas, administration of standardized tests, and familiarization with the various resources and procedures of the EBCE Program. The orientation concluded with individual conferences between students and learning coordinators. The learning coordinators provided the direction and resources for each student to develop a personalized set of learning experiences based on the student's interests, needs, and academic requirements. Using the Program Profile (a summary of the student's needs and interests), the student and learning coordinator prepared a Program Area Descriptor for each major program area the student would pursue. At this time, activities were outlined which were intended to lead to the achievement of the student's goals.

The activities could be completed in-house, using the instructional materials and other resources of the AEL/EBCE learning center, or they could be experience site-based activities. Students were placed at sites to do real or simulated work or to observe, remaining at the sites until the planned activities were accomplished.

The Program Area Descriptor constitutes a plan for several weeks' work, to be expanded or modified as students broaden or refine their interests. Each of the planned activities was detailed on an Activity Sheet, a document on which are recorded specific behavioral objectives, a description of the activities to be performed, and assessments (by student and learning coordinator) of the assignment, the student's performance, and goal achievement. These planned activities and associated evaluations determined and justified the awarding of academic credit required for high school graduation.

B. Overview of Subsystems

The preceding briefly described the EBCE system in terms of the delivery of services to students. Implementing the program required the smooth and timely functioning of five subsystems. Figure 3-1

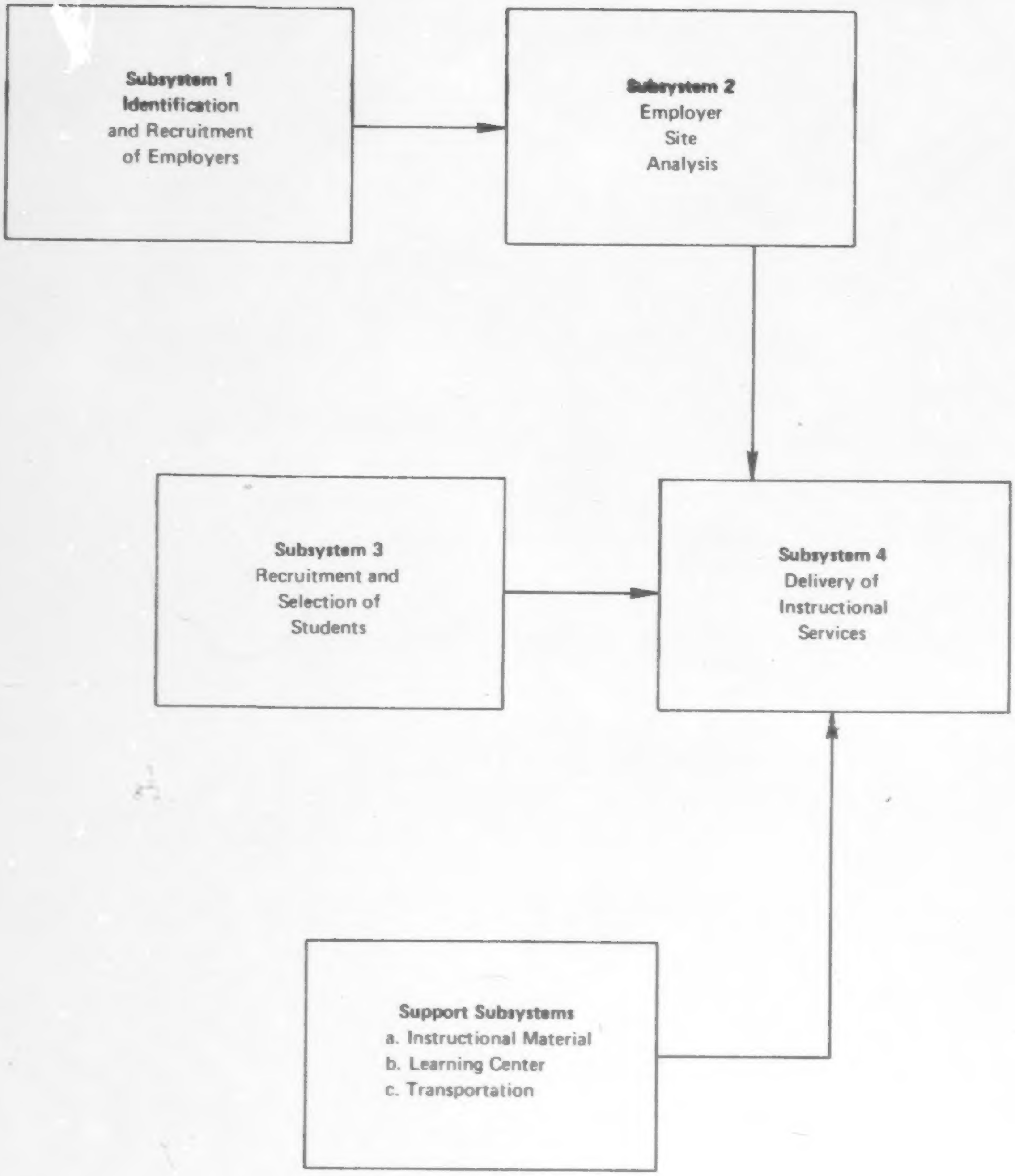
Subsystem 1
Identification and Recruitment of Employers
Subsystem 2
Employer Site Analysis
Subsystem 3
Recruitment and Selection of Students
Subsystem 4
Delivery of Instructional Services
Support Subsystems
a. Instructional Material
b. Learning Center
c. Transportation

Figure 3-1

Subsystems of the AEL/EBCE System

portrays these subsystems and their interdependence. The description of the operation of the subsystems is based on the way they functioned between September, 1973 through January, 1974. They are described in the present tense. Modifications occurring after February 1 will be reported in the final evaluation report.

The following activities had to be completed for the program to function effectively: (1) Experience sites had to be developed; (2) these sites had to be analyzed in terms of requirements, expectations, and opportunities for student learning activities; (3) student recruitment and selection procedures had to be established; and (4) the instructional delivery subsystem had to be operational. (5) Additionally, certain support subsystems had to be developed, including transportation, instructional materials, and various resource documents to be used by learning coordinators as they worked with students. These support subsystems are not described because the questions in the evaluation plan did not cover them.

The remainder of this part describes the four major subsystems.

1. Experience Site Identification and Recruitment Subsystem

Because a significant portion of the instructional activities within EBCE occurs at experience sites, it is essential that a number of sites be available which parallel the interests of students and the parameters established by AEL. Furthermore, the sites have to provide meaningful and relevant learning experiences for students. The procedure for obtaining experience sites is portrayed in Figure 3-2.

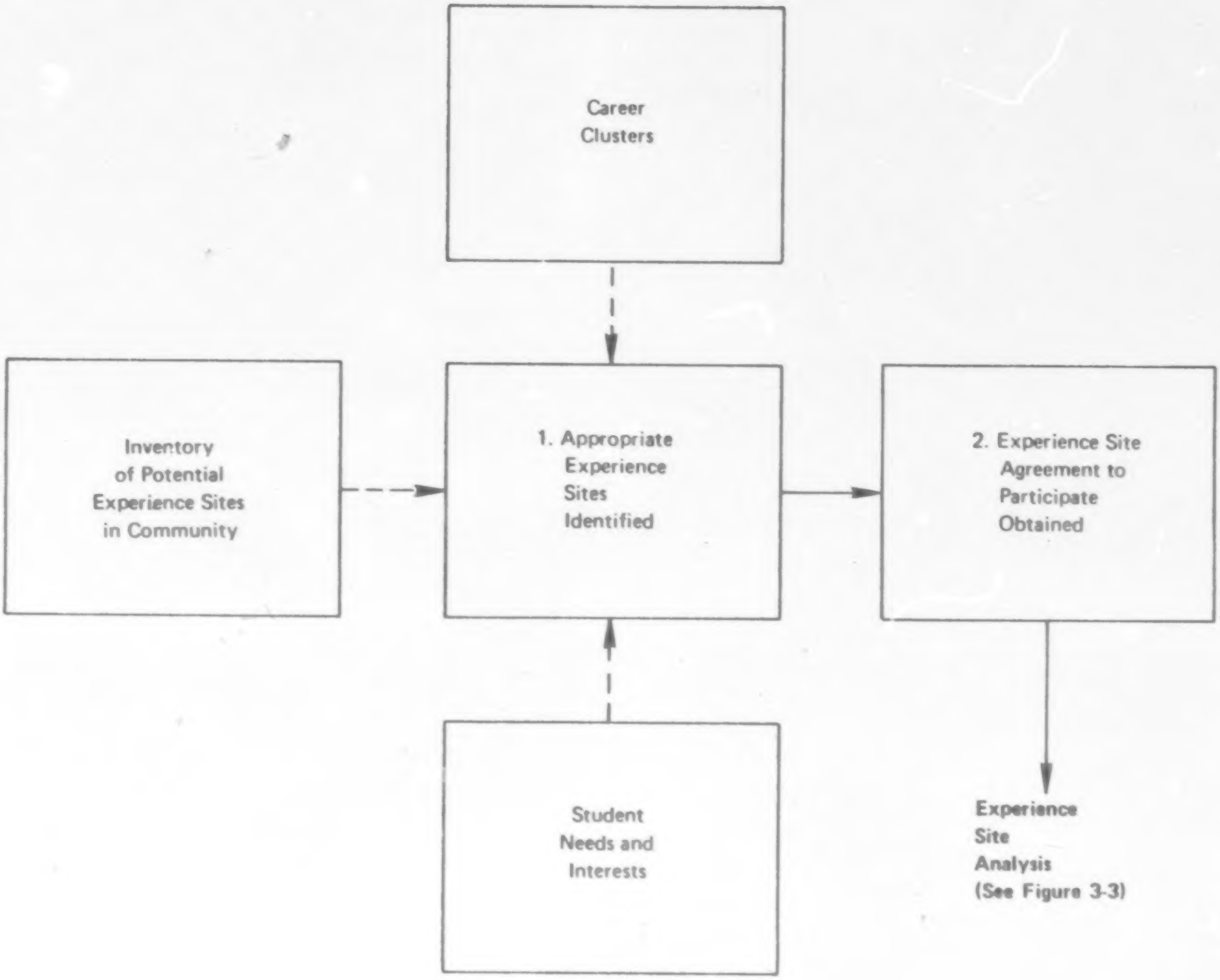
Career
Clusters
Inventory
of Potential
Experience Sites
in Community
1. Appropriate
Experience
Sites
Identified
2. Experience Site
Agreement to
Participate
Obtained
Student
Needs and
Interests
Experience
Site
Analysis
(See Figure 3-3)

Figure 3-2

Employer Identification and Recruitment Subsystem
January, 1974

When the AEL/EBCE Program was initiated, well-known people who were knowledgeable about the Charleston community identified potential experience sites in order to insure that all Office of Education Career Clusters were included. Other sites were, and continue to be, incorporated in order to meet student needs.

Once a potential experience site is identified, the chief executive at that site is contacted, EBCE is briefly described, and an appointment is requested if the employer indicates an interest in participating. A meeting is arranged at which material describing the program is presented, questions are answered, and the employer is asked to participate. If agreement to participate is obtained, the experience site analysis is undertaken.

At this time, developing a new experience site is the joint responsibility of learning coordinators and an Experience Site Recruitment and Educational Utilization Specialist in the Design/Development Unit.

2. Experience Site Analysis Subsystem

The Experience Site Analysis Subsystem (See Figure 3-3) is directly linked to the Experience Site Recruitment/Selection Subsystem. The primary outputs of the Experience Site Recruitment/Selection Subsystem are expressions of a willingness/unwillingness by employers to participate in the AEL/EBCE Program.

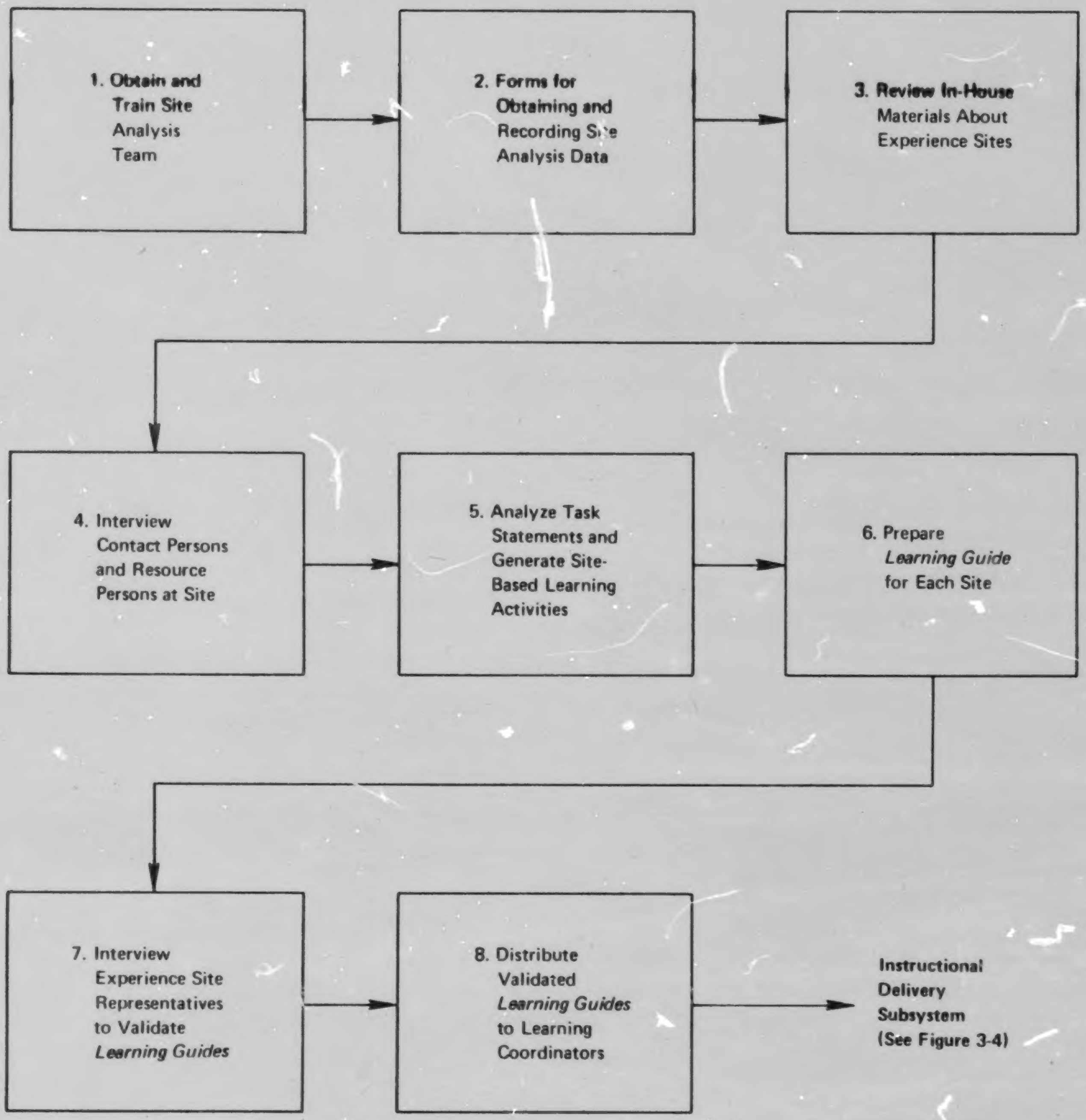
1. Obtain and Train Site Analysis Team
2. Forms for Obtaining and Recording Site Analysis Data
3. Review In-House Materials About Experience Sites
4. Interview Contact Persons and Resource Persons at Site
5. Analyze Task Statements and Generate Site-Based Learning Activities
6. Prepare *Learning Guide* for Each Site
7. Interview Experience Site Representatives to Validate *Learning Guides*
8. Distribute Validated *Learning Guides* to Learning Coordinators
Instructional Delivery Subsystem (See Figure 3-4)

Figure 3-3

Experience Site Analysis Subsystem
January, 1974

The Experience Site Analysis Subsystem has been developed to analyze each site. The products of the experience site analyses are Experience Site Learning Guides for every experience site. These Guides provide information which help both student/learning coordinator teams and employers to maximize benefits, particularly in planning.

As outlined in Figure 3-3, the first step in the subsystem is to obtain and train a site analysis team. These people can be program staff members or consultants. The training of the site analysis team revolves around Step 2 - the forms for obtaining and recording site analysis data. Before visiting the experience site, the analysis team becomes familiar with all material previously collected on that experience site so that questions can be anticipated and answers prepared. The first time the site analysis team visits the experience site is at Step 4. The purpose of this visit is to interview both the contact person(s) and the resource person(s). The interviews are designed to obtain the following types of information about the experience sites.

- Logistical information - (1) Is there adequate parking? (2) Is there a cafeteria on the premises? (3) When does the working day begin and end? etc.
- Description of experience site - This description includes both general and specific information about the purpose of the experience site.

- Task statements - These are tasks identified by mutual agreement that the students might either observe or in which they might actually become involved as part of their learning experiences.
- Information on possible learning activities - This includes activities and projects a student may do at a specific site and gives the prerequisites a student needs to participate in an activity.

Based on the information obtained in Step 4, the task statements are analyzed and learning activities for students are generated for that site. Combining the other information collected in Step 4 plus task statements and the learning activities which have been generated, Learning Guides are developed for each site. Since the learning activities in the Learning Guide are not written at the experience site, an additional visit to the site is made to validate all information contained in the Learning Guide. After the Learning Guide is validated, it is distributed to learning coordinators for use with students. As mentioned earlier, the Learning Guide is the product of the Experience Site Analysis. This product then becomes a tool for the delivery of instruction.

3. Student Recruitment and Selection Subsystem

The AEL/EBCE Program drew its students from a population of high school seniors representing one or more of the following categories: (1) a wide range of academic ability levels;

(2) diverse socioeconomic backgrounds; (3) diverse racial and cultural backgrounds; (4) a wide range of academic achievement; and (5) diverse career aspirations.

From this population, students were sought who (1) were eligible for enrollment in the Kanawha County School System; (2) were within one year (fall semester applicants) or one semester (spring semester applicants) of completing high school; (3) had specific course requirements that could be fulfilled by the end of the academic year in which they entered the program; (4) volunteered to participate with parental consent; (5) had expressed career interest compatible with program capability; (6) did not participate in work activities which would conflict with the EBCE Program; (7) did not present unresolvable transportation problems; (8) revealed no major health or adjustment problems; (9) had been enrolled in regular classes in the preceding school term; (10) were not under suspension or threat of suspension by any school system; and (11) did not have commitments (e.g., band, athletics) which would interfere with involvement in the EBCE Program.

For the 1973-74 academic year, procedures used to recruit students are outlined in the Student Recruitment and Selection Subsystem (See Figure 3-4). The process begins by obtaining permission and cooperation from the Kanawha County schools to recruit. Dissemination of information to students about AEL/EBCE occurs next. During this year, school guidance counselors distributed

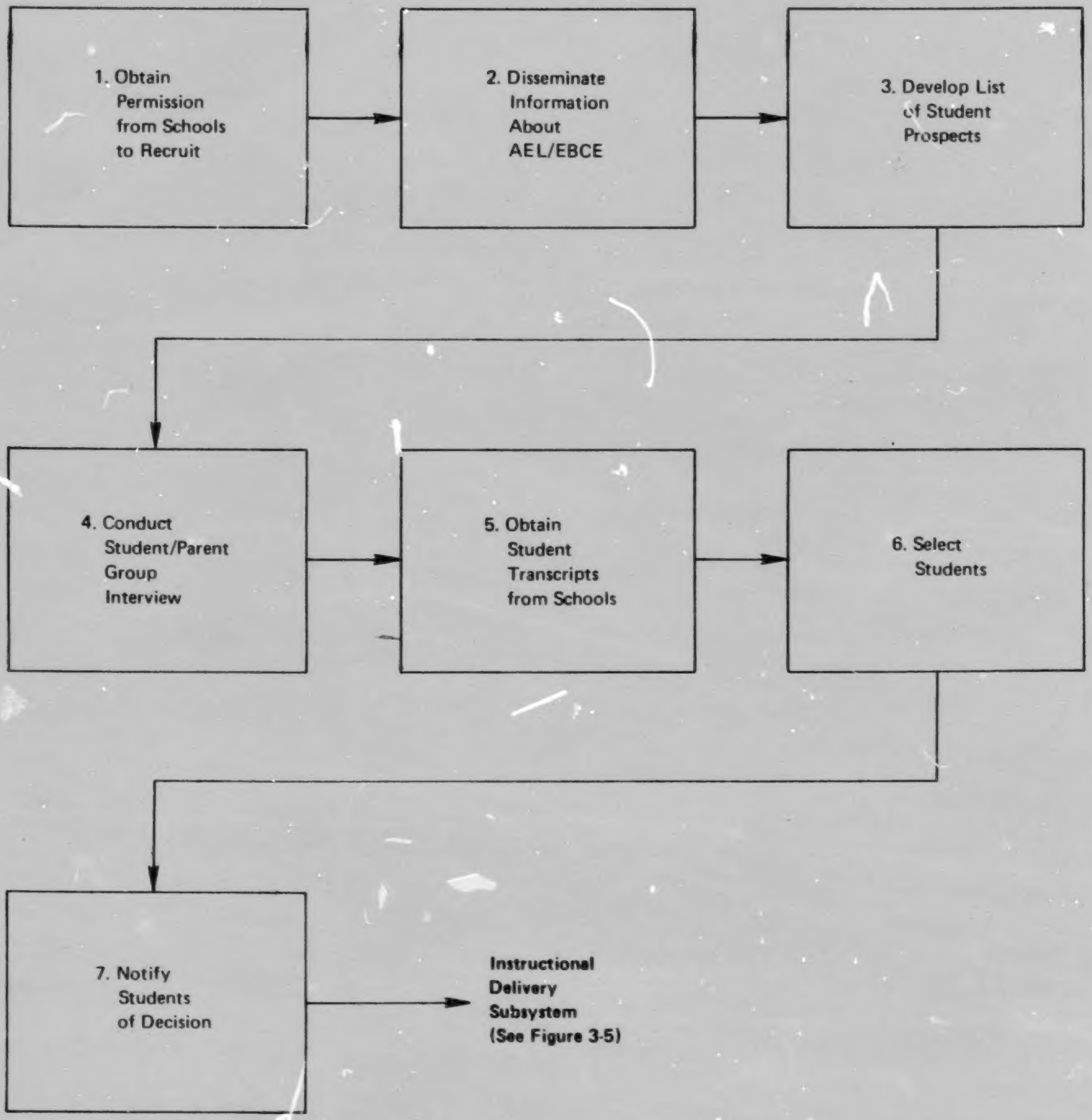
1. Obtain Permission from Schools to Recruit
2. Disseminate Information About AEL/EBCE
3. Develop List of Student Prospects
4. Conduct Student/Parent Group Interview
5. Obtain Student Transcripts from Schools
6. Select Students
7. Notify Students of Decision
Instructional Delivery Subsystem (See Figure 3-5)

Figure 3-4

Student Recruitment and Selection Subsystem
January, 1974

a brochure describing EBCE to eligible students. Because this procedure proved inadequate, AEL conducted two mass mailings (to a total of approximately 3,500 students). Additionally, students were recruited through spot announcements and a talk show appearance on radio and by newspaper advertisements.

A list is then compiled of the names of students responding to any of the recruiting efforts. Arrangements are made for those students and their parents to attend a group interview with AEL/EBCE personnel. During the interview, students and parents are given a more detailed description of the program, and expressions of their interests and needs are obtained.

For those students who continue to express an interest in the program and whose parents consent to their participation in the program, high school transcripts are obtained. On the basis of information obtained during the group interviews and information contained on the high school transcripts, EBCE staff decides which students are to be admitted to the program. Students are notified of the decision both by telephone and by letter.

4. Instructional Delivery Subsystem

The Instructional Delivery Subsystem (See Figure 3-5) is one of the five basic subsystems inherent to the AEL/EBCE Program. This subsystem employs the outputs of the other subsystems in order to deliver to the student an alternative form of education.

For the purpose of this report, the Instructional Delivery Subsystem is divided into two component subsystems: Orientation

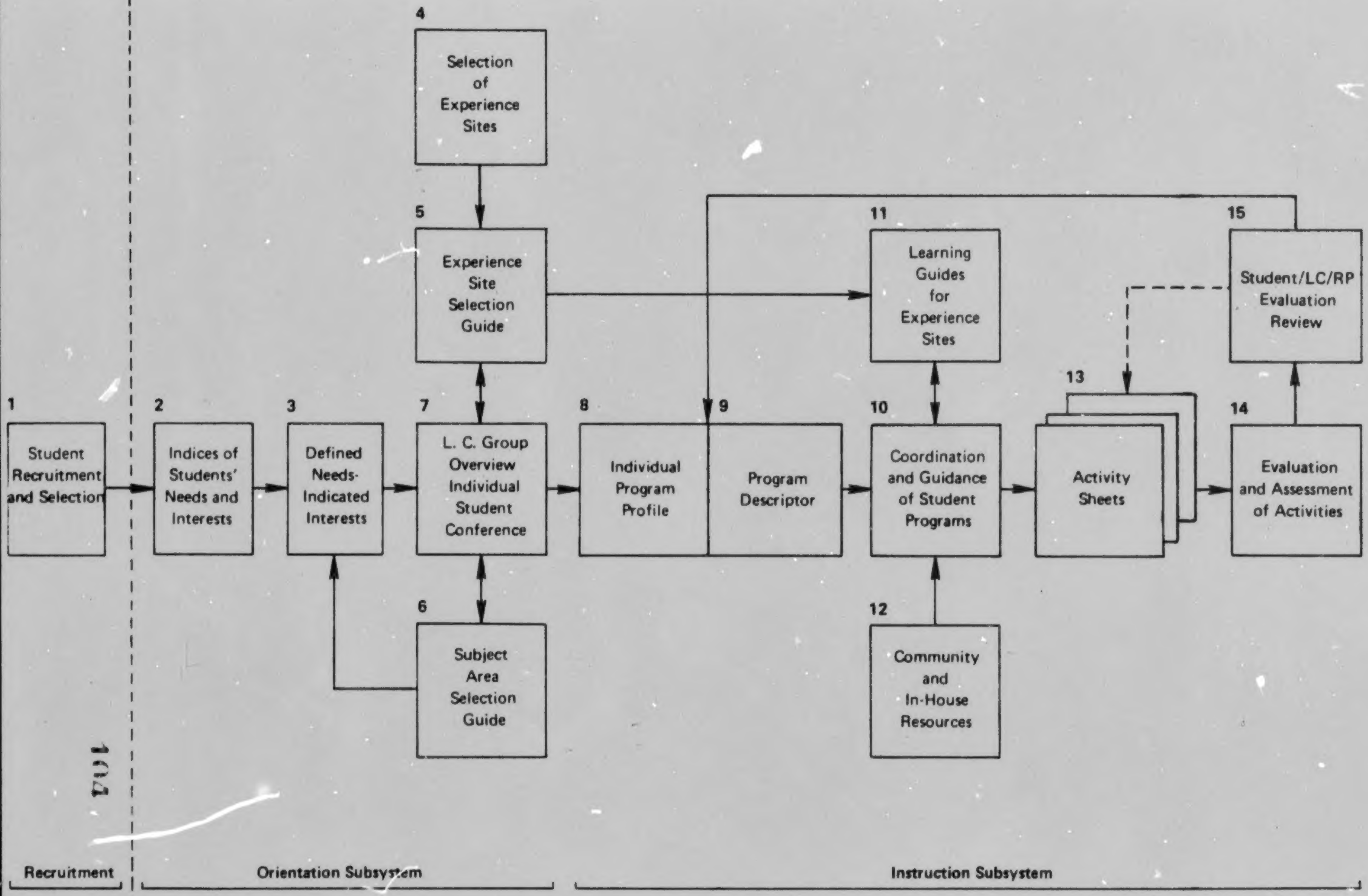
1
Student Recruitment and Selection
2
Indices of Students' Needs and Interests
3
Defined Needs-Indicated Interests
4
Selection of Experience Sites
5
Experience Site Selection Guide
6
Subject Area Selection Guide
7
L. C. Group Overview Individual Student Conference
8
Individual Program Profile
9
Program Descriptor
10
Coordination and Guidance of Student Programs
11
Learning Guides for Experience Sites
12
Community and In-House Resources
13
Activity Sheets
14
Evaluation and Assessment of Activities
15
Student/LC/RP Evaluation Review
Recruitment
Orientation Subsystem
Instruction Subsystem

Figure 3-5

Instruction Delivery Subsystem
January, 1974

and Instruction. Orientation is designed to give the students an overview of the EBCE Program. During the orientation process, the staff obtains data on students' needs and interests. This information is used to complete the students' Program Profiles and Program Descriptors, which are the first two steps in the Instruction Subsystem.

The Instruction Subsystem is composed of eight major steps. Each step can be divided into sets of procedures, tasks, forms, and interactions.

Based on the information obtained on each student from both orientation and student recruitment and selection, the learning coordinator and the student complete the individual Program Profile and Program Descriptor. This information enables the learning coordinator to identify appropriate learning experiences for the student. These learning experiences may draw from either community and in-house resources or Learning Guides (representing experience sites) or both.

After appropriate learning experiences and the vehicles for delivering these experiences have been identified, Activity Sheets are developed by the learning coordinator and the student in a one-to-one conference. The purpose of Activity Sheets is to take a student through a series of subactivities in order to satisfy his learning objective. In Step 14 the learning coordinator assesses the degree to which the student accomplished his objective. At this point the learning coordinator must decide if the student has completed enough work to pursue another area. If he has, recycling returns to the Program Descriptor. If the student needs more work in a particular area, then recycling returns to Activity Sheets.

VII. FINDINGS OF FORMATIVE EVALUATION OF AEL/EBCE SUBSYSTEMS

The intent of this part is to provide a comprehensive report on the formative evaluation of the subsystems described in the preceding part of this section. The formative evaluation report for each subsystem uses an identical format and presents the following information:

- The critical questions contained in the Formative Evaluation Plan
- The sources of data
- Instruments used
- The schedule for administering the instruments
- The data for each question

Conclusions, recommendations, and actions taken to date are then presented for each subsystem.

A. Subsystem: Experience Site Identification and Recruitment

1. Question 1: What is the relative effectiveness of items in the Public Relations Packets?
    a. Data Sources: N/A
    b. Instruments: N/A
    c. Administration Schedule: N/A
    d. Data: N/A

2. Question 2: Why do employers (refuse/agree) to participate?
    a. Data Sources: 45 experience sites; site analysis team
    b. Instruments: Combined with summative evaluation instrument (questionnaire); site analysis team interview
    c. Administration Schedule: Mid-January and mid-February
    d. Data:
        (1) Sixteen of 45 (36%) experience sites responded to the summative evaluation questionnaire.

The first scale asked, "How important do you feel this learning is?" The second scale asked, "How effective do you feel the project has been in accomplishing this learning?" The responses to these scales are presented in Table 3-6. The data were analyzed by using a t-test for correlated samples. The t value of 1.00 was not significant. To be significant, the critical value of t had to exceed 2.145 at the .05 level.

4. Question 4: Is the Career Cluster Distribution Matrix accurate?/ Does distribution of sites over clusters match student needs?
   a. Data Sources: Comparison of Learning Guides against Career Cluster Distribution Matrix; students
   b. Instruments: No instrument needed for first part of question; questionnaire - Students' Perception of Experience Sites
   c. Administration Schedule: After students finish site visits
   d. Data:
      (1) Learning Guides were validated by the employers and revised if needed.
      (2) Students were asked to respond to the following question: Are students given their choices in site placements? Forty-six students responded to the question with the following results:

         55% Yes

         9% Don't know

         26% No

instruments were given to all resource people via the contact person. On the average, 2.06 responses per experience site were received. The resource people responded to the following questions:

(a) How did you become involved with EBCE?

19 EBCE personnel contacted me.

7 A student talked to me.

1 Another employer talked to me.

12 Company personnel talked to me.

(b) Do you plan to continue participating in EBCE?

20 Yes

0 No

13 Don't know

(2) The site analysis team responded to the following question: Did any experience site refuse to participate?

1 Yes

39 No

3. Question 3: Do participating employers feel the program as it functions fits with what they were led to expect?

a. Data Sources: 45 employers

b. Instruments: Combined with summative evaluation instrument

c. Administration Schedule: Mid-February

d. Data: Resource people were asked to rate items dealing with important areas of student learning on two scales.

TABLE 3-6

EMPLOYERS' OPINIONS ABOUT STUDENT LEARNING

	How Important Do You Feel This Learning Is?						How Effective Do You Feel the Project Has Been in Accomplishing This Learning?					
	Frequency					Mean	Frequency					Mean
	Not Important 1	2	3	Highly Important 4	5	$\bar{x}$	Not Effective 1	2	3	Highly Effective 4	5	$\bar{x}$
Students learn to:												
a. Perform specific occupational skills	1	4	5	7	14	3.94	1	2	15	4	6	3.43
b. Be punctual and organize their time	0	0	3	7	21	4.58	1	3	11	9	5	3.48
c. Assume responsibility for themselves	0	0	2	8	23	4.64	1	4	8	9	7	3.59
d. Make decisions and follow through	0	0	6	7	19	4.41	2	3	15	5	4	3.2.
e. Communicate with others in a mature way	0	0	1	12	19	4.56	1	3	11	7	7	3.55
f. Be aware of more career opportunities	0	0	5	7	20	4.47	1	0	10	8	9	3.90
g. Work with others	0	0	2	9	21	4.59	2	0	10	8	9	3.76
h. Evaluate their own work	0	0	6	8	15	3.69	1	4	15	3	4	3.19
i. Perform basic academic skills	0	1	5	10	15	4.26	2	1	14	5	5	3.37
j. Think through and solve problems	0	0	6	7	19	4.41	1	3	15	7	3	3.28
k. Have a positive attitude toward self	0	0	3	7	22	4.59	1	2	14	7	5	3.45
l. Have a positive attitude toward work	0	0	2	5	25	4.72	1	6	8	6	7	3.43
m. Have a positive attitude toward learning	0	0	1	4	27	4.81	1	4	12	4	8	3.48
n. Prepare for further education	1	0	3	5	23	4.53	2	2	9	6	8	3.59
o. Improve interpersonal and social skills	0	0	3	11	18	4.47	1	2	10	12	3	3.50

5. Conclusions

a. The relative effectiveness of the Public Relations Packet could not be evaluated since at this time it does not exist. Some public relations materials for the AEL/EBCE Program do exist and are distributed on the basis of the user's need for the information. The development of the Packet is a recent responsibility of the Replication Unit. When the Packet is finished, evaluation will examine both the accuracy of the information in it and the effectiveness of the Packet to all potential recipients.

b. The formative evaluation of the question, "Why do employers agree/refuse to participate?" was done in conjunction with the summative evaluation. There are two reasons why this was necessary:

(1) Employers donate their time; therefore, it would be unwise to request information twice which could be gathered in one step.

(2) Two similar questionnaires could damage the public relations between the project and employers.

The 13 resource people who indicated that they did not know the status of participation for the following year stated that that decision was up to the experience site. The resource people indicated that the EBCE staff recruits them primarily, although other company personnel and students also do a high percentage of the recruiting. The site analysis team indicated that one of the 40 sites visited did not wish to continue participating in the EBCE Program. The experience site representative stated that he was unhappy about the type of students he had worked with. The site analysis team indicated the other 39 experience sites were very receptive to EBCE.

c. Apparently the resource people feel the program is functioning as it should. A t-test was computed which was not significant at the .05 level of confidence, even though what should happen had a higher mean than what actually happened. The accuracy of the distribution of the Career Cluster Matrix when compared to Learning Guides is a continuous ongoing process. Each Guide is validated by employers when completed. The students feel that site placements represent their interest areas. An explanation for the 26 percent who indicated no was due to the site placement mechanism. If a site was filled, a student had to wait until a vacancy occurred. The waiting time was anywhere from approximately one to three weeks. Although learning coordinators attempt to place the student in a similar site, it is not always possible.

6. Recommendations and Relevant Program Action

This part of the formative evaluation section lists the recommendations and relevant program actions. There is no implication that the formative evaluation recommendations caused program actions. The process is interactive in nature; in fact, the action taken by the staff may have preceded the initial recommendation by evaluation.

Recommendations:	Action:
a. The development of the Public Relations Packet should be accomplished in time to permit an extensive evaluation.	a.1. Established a Replication Unit in November, 1973.
	a.2. Operationalized the Unit in January, 1974.
	a.3. Assigned major responsibility for developing Packet to Replication Unit.
	a.4. Set timeline of February to August, 1974 for development of Packet.
b. Communication between experience site resource people and the AEL/EBCE Program should be strengthened.	b.1. Recognized the problem in September, 1973.
	b.2. Held staff meetings to address problem.
	b.3. Made decision in December, 1973 to hold an in-service training session for resource people and contact people.
	b.4. Completed development of training package in December, 1973.
	b.5. Planning for experience site in-service training session in April, 1974.
c. The number of experience sites for each of the Worker Trait Groups should be increased.	c.1. Recognized the problem in December, 1973.
	c.2. Conducting a study, presently underway by Design and Evaluation staff.

Recommendations:	Action:
	c.3. Projected date for completion of study - April, 1974.

B. Subsystem: Experience Site Analysis

1. Question 1: What training is needed by the analysis team? (a) Who does it? (b) How much time is needed? (c) What training materials are used? (d) Is it effective?

   a. Data Sources: Design staff; site analysis team; in-house documents

   b. Instruments: Questionnaire; interview

   c. Administration Schedule: January

   d. Data:

      (1) The Design staff responded to the following questions:

         (a) Who does the training?
         The training of the site analysis team was done by two members of Design staff.

         (b) How much time does it take to train the site analysis team?
         According to the Design staff, it takes approximately twelve to fourteen hours.

         (c) What training materials are used?
         Training materials were developed by the Design staff.

        (d) Is the training effective?
            According to the Design staff that did the training, the training was effective.

    (2) The site analysis team responded to the following questions:

        (a) Who does the training?
            The training of the site analysis team was done by two members of the Design staff.

        (b) How much time does it take to do the training?
            According to the site analysis team, two days are needed.

        (c) What training materials were used?
            Training materials were developed by the Design staff.

        (d) Is the training effective?
            The site analysis team indicated that the training was effective.

2. Question 2: What is the average time/site analysis?
    a. Data Source: Site analysis team; Design staff
    b. Instruments: Interview; questionnaire
    c. Administration Schedule: January
    d. Data:
        (1) The site analysis team responded to the following question: What is the average time/site analysis?

        The site analysis team indicated approximately 3 to 3 1/2 hours; and 1 to 1 1/2 hours are needed for interviews.

    (2) The Design staff responded to the following question: What is the average time/site analysis? The Design staff estimated that 12 hours were necessary.

3. Question 3: Who translates site analysis information into the final product of the analysis: Learning Guides? What is the average time per Learning Guide? What difficulties are encountered?

    a. Data Sources: Design staff; site analysis team

    b. Instruments: Interviews

    c. Administration Schedule: January

    d. Data: Both the Design staff and the site analysis team responded identically to the following questions:

        (1) Who translates site analysis information into the final product of the analysis?
        Both groups indicated that the person on the site analysis team that analyzed the site was responsible.

        (2) What is the average time to complete a Learning Guide once the analysis is completed?
        Both groups agreed that the time will vary due to the complexity of the site. The estimated time was 1/2 hour to 2 hours.

(3) What difficulties are encountered?

The site analysis team indicated the major problem encountered was in presenting the information (format).

4. Question 4: Are *Learning Guides* useful to students and learning coordinators? (a) Format OK? (b) Is the information clear? (c) Are *Learning Guides* used?/Can a learning coordinator prepare a student Activity Sheet from information in a *Learning Guide*?

a. Data Sources: Learning coordinators; random sample of 11 students

b. Instruments: Interviews; questionnaire

c. Administration Schedule: January

d. Data:

(1) The learning coordinators responded to the following questions:

(a) Are the *Learning Guides* useful?

3 Yes; 3 No

The respondents indicating *no* stated they could not judge their usefulness because the *Learning Guides* were not available.

(b) Is the format OK?

4 Yes; 1 Don't know (because not available)

(c) Is the information clear?

4 Yes; 1 Don't know (because not available)

(d) Are Learning Guides used?

3 Yes; 1 No; 1 Don't know (because not available)

(e) Can a learning coordinator prepare a student Activity Sheet from information in a Learning Guide?

1 Learning Guides not available -- Don't know; 2 Sometimes; 1 Depends on the students' needs & interests

(2) The students responded to the following questions:

(a) When you want to find out something about an experience site, do you find the Learning Guide helpful?

10 Yes; 1 Sometimes

(b) Is there anything that is not now included in the Learning Guides that you would like to know about the sites?

6 No; 2 More information about sites is needed; 1 Need to include student comments about experience sites.

(c) Do you find the way the information is presented in the Learning Guides makes it easy for you to find what you want to know?

8 Yes; 1 Usually

5. Conclusions

a. Based on the congruence of information received from the Design staff and the site analysis team, the question regarding training needed by the analysis team is clearly understood by both groups. The effectiveness of the training is substantiated by the number of experience sites that were analyzed. Thirty-nine of the 40 experience sites indicated a continuing interest in the project. One indicated an unwillingness to continue participating because of the students that were sent.

b. A discrepancy was found in the estimates for average time/site analysis. The Design staff indicated 12 hours were needed. The site analysis team estimated 3 to 3 1/2 hours with 1 to 1 1/2 hours needed for interviewing the experience site personnel.

c. No discrepancies were found when the Design staff and the site analysis team were interviewed about the translation of site analysis information into Learning Guides, the average time required per Guide, and difficulties encountered.

d. Learning coordinators were mixed in their statements about use of the Learning Guides. Three indicated they were used and three indicated they were not used. Because of these data, learning coordinators that gave negative responses indicated that all *Learning Guides* were not available; therefore, their usefulness was questioned. It should be noted that 54 *Learning Guides* have been developed but only 9 have been delivered from the printers.

e. Learning coordinators indicated the usefulness of the *Learning Guides* would be increased if examples of activities were located in each *Guide*.

f. The students answering the question of *Learning Guide* usefulness responded positively in most cases.

6. Recommendations and Relevant Program Action

This part of the formative evaluation section lists the recommendations and relevant program actions. There is no implication that the formative evaluation recommendations caused program actions. The process is interactive in nature; in fact, the action taken by the staff may have preceded the initial recommendation by evaluation.

Recommendations:	Action:
a. The site analysis team training was judged to be successful. Therefore, efforts should be channeled into other areas of need.	a.1. Developed Experience Site Analysis Training Package a.2. Channeling staff efforts into other areas.

Recommendations:	Action:
b. The use of Learning Guides would be increased if the Guides were available. Therefore, it is recommended that Learning Guides be made available as soon as possible.	b.1. Recognized by Design staff as a problem prior to staff in-service training, September, 1973.
	b.2. Recognized by Operations staff as problem prior to student orientation, 1973.
	b.3. Developed Experience Site Analysis Training Package (by Design staff).
	b.4. Trained experience site analysis team.
	b.5. Set timelines for experience site development.
	b.6. Developed Learning Guides and sent to printers in January, 1974.
	b.7. Delivered Learning Guides in March, 1974.
c. The Learning Guides should include examples of activities in order to facilitate the writing of Activity Sheets.	c.1. Preparing recommended actions to be given to Stabilization Management Team during the next meeting.
	c.2. Document decision.

C. Subsystem: Student Recruitment and Selection

1. Question 1: What are the relative effects of the different methods used to acquaint students with EBCE?

   a. Data Sources: Students; learning coordinators; in-house documents

   b. Instruments: Questionnaire

   c. Administration Schedule: Steptember; January

   d. Data:

      (1) During the first recruitment in the summer of 1973, the goal was to recruit 100 students - 50 experimental and 50 control. Forty-four students were recruited using the following methods:

         (a) Pamphlets distributed to all senior homerooms; 3800 distributed; .79% returned.

         (b) Letters (first mailing) sent to students homes; 2800 distributed; 2.7% returned.

         (c) Letters (second mailing) sent to students' homes; 1000 distributed; 1.6% returned.

      (2) During the second recruitment in December, 1973, the goal was to recruit 100 students - 50 experimental and 50 control. Twenty students were recruited using the following procedure:

(a) A meeting was held with school counselors and principals in all eleven schools to explain the AEL/EBCE Program. The selection criteria were explained to school personnel.

(b) The counselors and principals were asked to select the students that they felt would be interested in the program.

(c) A team from AEL/EBCE (including students) presented the goals and objectives of the program to the students selected by the school staffs.

(d) Those students who attended the meetings and expressed an interest were asked to complete a questionnaire. Eighty to ninety students expressed interest.

(e) From the questionnaires received, parent interviews were scheduled over a two-day period. Twenty-five parents attended the meetings.

(3) During the third recruitment in January, 1973, the goal was to test a different system for

student recruitment. Twenty-four students were recruited using the following methods:

(a) The recruiting effort stressed public relations and explanation of the program to school staffs.

(b) The effort concentrated on three high schools.

(c) The AEL/EBCE Program was presented to principals and counselors.

(d) The AEL/EBCE Program was presented to seniors in large group meetings.

(4) Students were asked during both orientations to respond to the following questions concerning the project recruitment effort:

(a) How did you first find out about the EBCE Program?

The student responses during both orientation periods were very similar:

(1) Received a letter about the program in the mail.

(2) Picked up or were given a pamphlet about the program in school.

(3) Heard about the program on a radio station.

(4) Heard about the program from a high school counselor.

(5) Heard about the program from a friend who was in the program last year.

(6) Heard about the program in an assembly at school.

(b) In your opinion, what is the most efficient way to let students know about the EBCE Program?

(1) Through the mail

(2) Counselors

(3) Assemblies by staff members at home schools

(4) Through other students

(5) Invite interested students to spend a day at the EBCE site

(c) In your opinion, did we do a good job in describing the EBCE Program?

62% Yes

11% No

27% Unsure

(d) What improvements can be made in this area?

(1) Clear up the misconception that the program is just for dropouts.

(2) Send AEL/EBCE staff members to the schools

(3) Start recruitment earlier

(4) Send AEL/EBCE staff members and EBCE students to the schools

(5) Learning coordinators were asked to respond to the following questions:

(a) How well do publicity materials represent EBCE?

1 Materials reflect the nature and purpose of EBCE very well.

2 Materials reflect the nature and purpose of EBCE fairly well.

2 Materials reflect the nature and purpose of EBCE somewhat.

(b) What are your suggestions for improving the materials?

(1) We need to be more realistic and not offer something we can't deliver.

(2) We should use Worker Trait Group and Concept/Objective cards more extensively.

(3) Employers and former students are needed in the recruitment effort.

(4) Parents should be used.

(5) Should have more interaction with students, community and schools.

2. Question 2: What criteria are actually used to select students?

a. Data Sources: Those people who select students; student needs

b. Instruments: N/A

c. Administration Schedule: N/A

d. Data: The criteria for student selection are outlined in the Operational Plan as follows:

(1) Are eligible for enrollment in the Kanawha County School System.

(2) Are within one year (fall semester applicants) or one semester (spring semester applicants) of completing high school.

(3) Have specific course requirements that can be fulfilled by the end of the academic year in which they enter the program.

(4) Volunteer to participate, with parental consent.

(5) Have expressed career interests compatible with program capability.

(6) Do not participate in work activities which would conflict with the EBCE Program.

(7) Do not present unresolvable transportation problems.

(8) Reveal no major health or adjustment problems.

(9) Have been enrolled in regular classes in the preceding school term.

(10) Are not under suspension or threat of suspension by any school system.

(11) Do not have commitments (e.g., band, athletics) which would interfere with involvement in the EBCE Program.

For the February recruiting effort the criteria were changed slightly. Number of credits needed was modified to 1 1/2 and no more than 3 major areas of study, and the students must be within 1 semester of graduation.

3. Question 3: How functional are the selection criteria?

   a. Data Sources: Design unit

   b. Instruments: Interview

   c. Administration Schedule: January

   d. Data: Members of the Design staff were asked to rate each of the student selection criteria and indicate, "Yes, it was useful" or "No, it was not useful".

Criterion No.	Response
1	Yes
2	Yes - but some juniors were admitted
3	Yes
4	Yes
5	Yes
6	Yes
7	No
8	Yes
9	No
10	No
11	Yes

4. Question 4: Why do students choose (to participate/not to participate) in EBCE?
   - a. Data Sources: Students; students that transferred back to their home high school
   - b. Instruments: Questionnaire
   - c. Administration Schedule: September; January
   - d. Data:
     - (1) Students were asked to respond to the following question: What features of EBCE do you like the most?
       - (a) The program itself.
       - (b) Friendly people.
       - (c) Change from high school.

(d) Unconventional study methods.

(e) Freedom of choice that the program allows.

(f) Independence.

(g) Not in a classroom.

(h) No specific schedule.

(i) Job site experiences.

(j) One-to-one interaction with learning coordinator.

(k) The independent studies.

(l) Opportunity to work at places not available to an individual.

(m) Personalized teaching.

(n) Great amount of job experience and the variety of people.

(2) Students who returned to their home high school were asked to respond to the following question: Can you state the reason(s) why you decided to leave the program?

(a) Schedule conflict (sports & job) (2)

(b) Part-time job as a result of site placements (2)

(c) Parents dissatisfied and transportation (2)

(d) Transportation (1)

(e) Unwilling to fill out necessary forms (1)

(f) Program incomplete for student's needs (1)

(g) Beyond control and don't know (2)

5. Conclusions

a. The first and second recruitments were not successful. The required number of students was not recruited, and a poor response rate was observed. For the first recruitment, a pamphlet with a return requested was sent to high school students. The response rate was very low, due in part to an error in postage and the return form. If the student returned the pamphlet, it was addressed in such a way that it was returned to the student, not to EBCE. Potential student loss due to these errors cannot be determined. The third recruitment was apparently successful based on the number of responses and number of school visits. All recruitment efforts were seriously hampered because of the late funding by N.I.E. The agreement with the Kanawha County School System was that AEL/EBCE would not recruit until the contract was finalized.

b. Based on student responses to a questionnaire given during orientation, students heard about the AEL/EBCE Program by six methods. Students cited five ways which they felt would be most effective in communicating the AEL/EBCE

Program to students. Additional modifications of the recruitment subsystem included a polished presentation, and a follow-up of all students expressing interest in the program. All the improvements suggested by students have been addressed by the third recruitment subsystem.

c. All learning coordinators viewed the publicity materials as "being very reflective" to "somewhat reflective" of the nature and purpose of AEL/EBCE. The learning coordinators stated five ways the publicity materials could be improved.

d. The selection criteria, as viewed by selected members of the Design unit, appeared to be useful. Criteria seven, nine, and ten were reported not useful.

e. The students who responded to the orientation questionnaire indicated 14 reasons why they liked the AEL/EBCE Program. These reasons fall into the following five major categories: friendly people (staff and students), independence, site experience, one-to-one interaction, and scheduling.

f. Only one student who had returned to his home high school indicated that the program did not meet his needs.

g. Whether or not the AEL/EBCE recruitment effort reached the appropriate target audience is questionable. The difficulty is in defining "target" audience. Is the target group all seniors in the Kanawha County School System or all seniors who volunteered in Kanawha County?

6. Recommendations and Relevant Program Action

This part of the formative evaluation section lists the recommendations and relevant program actions. There is no implication that the formative evaluation recommendations caused program actions. The process is interactive in nature; in fact, the action taken by the staff may have preceded the initial recommendation by evaluation.

Recommendations:	Action:
a. The third recruitment subsystem should be operationalized with modifications based on staff and student inputs. This is probably the one most significant factor in developing an adequate timeline for recruitment.	a.1. Recognized that first and second recruitments were unsuccessful. a.2. Developed a new system for recruitment which incorporated staff and students' suggestions. a.3. Initiating student recruitment for FY 75 in March, 1974. a.4. Incorporated suggestions by staff and students in FY 75 recruitment.
b. The selection criteria should be examined critically.	b.1. Presenting recommendation to Stabilization Management Team at their next meeting. b.2. Documenting decisions.

Recommendations:	Action:
c. Communication with parents should be increased.	c.1. Presenting recommendation to Stabilization Management Team at their next meeting. c.2. Documenting decisions.
d. The transportation problem should be re-examined.	d.1. Presenting recommendation to Stabilization Management Team at their next meeting. d.2. Documenting decisions.

D. Subsystem: Instructional Delivery (Orientation)

1. Question 1: Do learning coordinators have all information needed to complete Program Profile?
   - a. Data Sources: Learning coordinators
   - b. Instruments: Interview
   - c. Administration Schedule: January
   - d. Data: Learning coordinators were asked to respond to the following questions:
     - (1) Do you feel you have all the information you need about each student when you attempt to complete the Program Profile?

       5 No; 0 Yes
     - (2) If you responded by indicating No, what items are typically lacking?

       5 Transcripts; 4 Diagnostic results; 4 Interaction with students; 3 Information about students aptitudes & abilities

(3) Is there any other information that would be helpful?

(a) A complete list of courses with description that a student took at his home high school.

(b) Additional interaction with students.

2. Question 2: Is the Program Profile used by learning coordinators in preparing the Program Descriptor?/If no, why not?

a. Data Sources: Learning coordinators

b. Instruments: Interview

c. Administration Schedule: January

d. Data: Learning coordinators were asked the following questions:

(1) Is the Program Profile helpful in filling out the Program Descriptor?

3 Yes; 1 No

(2) Is there any information that is not in the Program Profile that is needed to fill out the Program Descriptor?

Transcripts; diagnostic test scores; description of courses offered by each high school.

(3) Can you think of any changes in the format of the Program Descriptor?

4 No; 0 Yes

3. Question 3: How many students return to their home high schools after their first week in EBCE?/Why do they choose not to participate?
   a. Data Sources: Learning coordinators and Director of Operations
   b. Instruments: Interview
   c. Administration Schedule: First week of orientation, September, 1973
   d. Data: The learning coordinators and the Director of Operations indicated one student left the program during the first week. The reason cited was the number of forms, tests, and materials he had to fill out.

4. Question 4: Are students satisfied that their needs and interests are accurately reflected in the *Program Descriptor*?
   a. Data Sources: Students
   b. Instruments: Interview
   c. Administration Schedule: January
   d. Data: Students were asked to respond to the following questions:
      (1) Which of the following information is needed to fill out a *Program Descriptor*?
          6 Yes; 6 No: Transcripts
          2 Yes; 10 No: Achievement Test Scores
          9 Yes; 3 No: General Ability Information

(2) Can you think of any other information that is needed?

4 No; 5 Students' own interests, needs, and activities plus other tests taken during orientation; 1 Only the information that would help the student coordinate his interests into the correct area of study.

5. Question 5: Do students have enough information to make appropriate selections of experience sites?/Do they feel free to request sites not already participating in EBCE?

   a. Data Sources: Students

   b. Instruments: Questionnaire

   c. Administration Schedule: September; January

   d. Data: Students were asked to respond to the following questions:

      (1) When you filled out the Experience Site Selection Form during orientation, did you feel as if you had enough information about the various sites?

      5 Yes; 7 No

      (2) If No, what additional information is needed?

      7 More information should be given explaining what goes on at the various sites; 7 During the first semester not

enough information was given beforehand on any particular job site.

(3) If you filled out the Experience Site Selection Form now, would you choose the same sites again?

5 Yes, I would choose the same sites;

7 No, I would not choose the same sites.

(4) If No, what changes would you make?

(a) I haven't been to any sites that I chose yet.

(b) I would choose a smaller organization.

(c) Some of the sites I originally selected did not relate to my interest areas.

(d) I would ask for other placements.

(e) Some I would choose over; some I would not.

(5) If you wanted a site placement which was not a participating site, what would you do?

12 The student would discuss the new site with his learning coordinator, or he would discuss the new site with the Operations Director.

2 The student would try to develop the site himself.

12 The staff would try to develop the site and, if possible, place the student there as soon as possible.

6. Question 6: How successful are Career Education Workshops?

   a. Data Sources: Students; random sample of 11 students

   b. Instruments: Questionnaire

   c. Administration Schedule: September; January

   d. Data: Students were asked to respond to the following questions concerning the Career Education Workshop:

      (1) Did you understand the information presented?

September	January
80% Yes	10[illegible]

      (2) Was the information presented clearly?

September	January
79% Yes	100% Yes

      (3) Was the person that presented the information prepared?

September	January
70% Yes	100% Yes

7. Question 7: Is the sequencing of orientation activities effective?

   a. Data Sources: Students; random sample of 11 students

b. Instruments: Questionnaire

c. Administration Schedule: September; January

d. Data: Students were asked to respond to the following question: What specific changes would you make in orientation?

   (1) Reduce the amount of free time

   (2) Reduce or spread the testing

   (3) Provide more information about procedures, rules, and regulations about the AEL/EBCE Program

   (4) Three students indicated no changes are needed.

8. Question 8: Are time allocations for orientation activities appropriate?

   a. Data Sources: Students; random sample of 11 students

   b. Instruments: Questionnaire

   c. Administration Schedule: September; January

   d. Data: The students were asked to respond to the following question: Are time allocations for orientation activities appropriate?

      (1) Too much free time

      (2) Too much testing in a short period of time

      (3) More time for explanation of activities and procedures

9. Question 9: Are there activities which should be added/deleted?
    a. Data Sources: Learning coordinators
    b. Instruments: Questionnaire
    c. Administration Schedule: January
    d. Data: Learning coordinators were asked to respond to the following questions:
        (1) Should activities be added to orientation?

        2 Yes; 3 No

        (2) If yes, what activities?
            (a) Better explanation of the learning coordinators' function
            (b) Better explanation of students' responsibilities
            (c) Explanation of Kuder results to students
            (d) Explanation of standardized test results to students
            (e) Better explanation of the rules, regulations, and procedures to the students
        (3) Should activities be deleted from orientation?

        1 Yes; 4 No

10. Conclusions

a. Learning coordinators do not feel they are given enough information to adequately complete the Program Profile. The types of information typically lacking are transcripts, diagnostic test results, interaction with students, and the students' aptitudes and abilities. In addition, the learning coordinators indicated more information about courses and course descriptions would be helpful.

b. Learning coordinators find the Program Profile helpful in filling out the Program Descriptor. If the appropriate materials were given to the learning coordinators when they are filling out the Program Profile, no additional materials would be needed for the Program Descriptor. All respondents indicated that no change is needed in the format of the Program Descriptor.

c. To date, one student has returned to his home high school during orientation. The AEL/EBCE staff indicated the student had difficulty in filling out forms and taking tests.

d. Students, in responding to the question concerning information needed to complete the Program Descriptor, were very strong in stating that achievement test scores were not needed but that general ability information was. Students were undecided in regard to the need for transcripts. In addition, students indicated information concerning their interests, needs, and activities should be included on the Program Descriptor.

e. Students that responded to a questionnaire indicated not enough information was given during orientation concerning experience site placements. Students requested information about what happens at the various sites. The majority of the students indicated they would not choose the same site again. All reasons given did not relate to the lack of information about the sites. Some students indicated that because of their placement, their interest areas changed.

f. Students were positive in their reaction to AEL/EBCE staff willingness to develop new sites.

g. Students were positive concerning the Career Education Workshop held during the orientations in September and January.

h. Students indicated the orientation events should be changed. Their concerns focus on the amount of free time, testing, and explanation of rules, regulations, and procedures which govern EBCE.

i. Some of the learning coordinators indicated additional activities be added to orientation. Their concerns centered on a better explanation of the learning coordinator's function, student responsibilities, and explanation of testing results. The learning coordinators did not indicate any orientation activities should be deleted.

11. Recommendations and Relevant Program Actions

This part of the formative evaluation section lists the recommendations and relevant program actions. There is no implication that the formative evaluation recommendations caused program actions. The process is interactive in nature; in fact, the action taken by the staff may have preceded the initial recommendation by evaluation.

Recommendations:	Action:
a. Learning coordinators should be provided with appropriate materials for filling out the *Program Profile*.	a.1. Realized by staff as a problem. a.2. Improve turn-around time on Kuder results. a.3. Provided learning coordinators with transcripts for the second orientation.
b. A description of courses offered by each high school should be provided to learning coordinators.	b.1. Provide Stabilization Management Team with information. b.2. Document decisions.
c. Learning coordinators should be provided with information deemed important by student if the learning coordinators see it as important.	c.1. Provide Stabilization Management Team with information. c.2. Document decisions.

Recommendations:	Action:
d. Students should be provided additional information about various experience sites.	d.1. Provide Stabilization Management Team with information.
	d.2. Document decisions.
e. The staff of AEL/EBCE should re-examine the events, timelines, and purposes of orientation activities.	e.1. Recognized that changes in orientation were necessary.
	e.2. Changed the schedule for orientation after each one, based on staff and evaluation input.
	e.3. Providing Stabilization Management Team with orientation results so that decisions can be made.
	e.4. Document decisions.

E. Subsystem: Instructional Delivery (Instruction)

1. Question 1: Can learning coordinators translate information from Program Descriptors into relevant learning experiences?
   - a. Data Sources: Learning coordinators
   - b. Instruments: Interview
   - c. Administration Schedule: January
   - d. Data: The learning coordinators responded to the following questions:
     - (1) Do you have any problems in developing

learning experiences based on the Program Descriptors?

3 Yes; 2 No

(2) If Yes, what problems did you encounter?

(a) Assessing information relating to objectives is sometimes difficult.

(b) Students' program requirements often do not relate to students' interest areas.

(c) Lack of sufficient in-house resources.

(d) Lack of learning coordinator expertise in a specific program area.

2. Question 2: Can learning experiences be collated with available resources (in-house, community, or experience sites)? OR Do resources determine the nature of learning experiences specified?

a. Data Sources: Learning coordinators; students

b. Instruments: Questionnaire

c. Administration Schedule: January

d. Data:

(1) Learning coordinators were asked the following questions:

(a) What other considerations besides the *Program Descriptor* are involved in developing a learning experience?

i. Type of products students want to produce

ii. Limitations and availability of in-house resources

iii. Students' outside interests and graduation requirements

iv. Overuse of some experience sites, resulting in some students having to wait six to eight weeks before they can be placed in the site they chose.

(b) Do you have any problem because the appropriate instructional materials (people or things) are not readily available?

5 Yes; 0 No

(c) If *yes*, what suggestions can you make?

i. More in-house resources acquired

ii. Multiple listing of in-house resources

            iii. Better physical accessibility for finding materials
            iv. An up-to-date in-house resource list

    (2) Students were asked the following questions:
        (a) Have you ever been unable to do certain learning activities you were interested in because the resources were not available in EBCE?

            6 Yes; 5 No

        (b) If yes, what problems were encountered?
            i. The books that were needed were not available or were previously checked out.
            ii. Only a few available experience sites in Charleston for pursuing a career such as acting or directing.

3. Question 3: Are activities specified and products expected clear and unambiguous to students?
    a. Data Sources: Students
    b. Instruments: Questionnaire
    c. Administration Schedule: January
    d. Data: Students were asked to respond to the following questions:

(1) When your learning coordinator gives you an Activity Sheet, do you (always, usually, sometimes, or almost never) understand the purpose of the activity?

4 Always; 5 Usually; 2 Sometimes

(2) Is what you are supposed to do (always, usually, sometimes, or almost never) clear to you?

2 Always; 6 Usually; 3 Sometimes

(3) Do you (always, usually, sometimes, or almost never) know what products you are supposed to produce in completing an activity?

3 Always; 2 Usually; 6 Sometimes

4. Question 4: Do students know evaluative criteria and procedures when they undertake an activity?

a. Data Sources: Students

b. Instruments: Questionnaire

c. Administration Schedule: February

d. Data: Students were asked to respond to the following questions:

(1) Do you know how good a job you have to do in order to receive a good evaluation?

3 Always; 7 Usually; 1 Sometimes

(2) Do you think the standards used to judge your work are fair?

5 Always; 2 Usually; 4 Sometimes

5. Question 5: Are there objectives and clearly specified criteria for determining the potential credit value of activities?/ Is the mechanism useful?

a. Data Sources: Learning coordinators; in-house documents

b. Instruments: Interview

c. Administration Schedule: January

d. Data: The learning coordinators were asked to respond to the following questions:

(1) Are you aware of any guidelines for deciding the point value of an activity?

2 Yes; 3 No

(2) If yes, how useful are they?/If no, do you think such guidelines would be useful?

(a) The guidelines point out some criteria - mostly common sense.

(b) Yes, guidelines would be useful.

(c) Yes, would be useful but they should be developed by the learning coordinators.

(d) No, guidelines would not be useful since each student varies.

(3) Can you describe the criteria you now use?

   (a) Amount of time student will need to complete an activity
   (b) The amount of credit students need
   (c) How the Activity Sheet compares with high school assignments
   (d) Quality of materials student must cover
   (e) Quality of the product student must produce
   (f) A student's idea on what a point range should be
   (g) The student's needs, abilities, and past performance
   (h) The amount of time a student has in the program
   (i) The degree of difficulty of the Activity Sheet
   (j) The amount of Activity Sheets that can be written in that given time

6. Question 6: Are criteria for assigning actual credit values, based on the evaluation, clear and unambiguous?

a. Data Sources: Learning coordinators

b. Instruments: Interview

c. Administration Schedule: January

d. Data: The learning coordinators were asked to respond to the following questions:

(1) Are there specific criteria for judging the adequacy of a student's performance?

2 Yes; 3 No

(2) If yes, describe the criteria and procedures you use in deciding how much credit a complete activity shall receive.

- (a) Effort of student
- (b) Quality of work
- (c) Quantity of work
- (d) Student restriction or expansion of the Activity Sheet
- (e) The time spent on the product
- (f) Accuracy
- (g) Dependability
- (h) Student's ability
- (i) How well the subject area was covered, i.e., content

(j) Creativeness

(k) Self-directiveness

7. Conclusions

   a. A majority of the learning coordinators indicated they had problems in developing learning experiences based on the Program Descriptors. The problems centered around students' interests and credits needed for graduation, lack of sufficient in-house resources, and lack of learning coordinators' expertise in specific areas.

   b. Learning coordinators indicated that considerations other than the Program Descriptor are involved in developing a learning experience for the student. The other considerations were products, availability of in-house resources, students' interests, and the use of experience sites.

      All learning coordinators indicated problems existed since instructional materials were not readily available. The learning coordinators suggested a number of changes: acquire more in-house resources, better accessibility and multiple listing of in-house resources.

   c. A majority of the students had problems doing certain activities because resources were not available. Students' responses centered around the need for more books and the lack of specific sites located in Charleston that could be open to students during the hours of 8:30 a.m. to 3:30 p.m., such as sites relating to the arts.

d. Students usually understood the purpose of the activity assigned to them by their learning coordinator, and the directions for completing the activity were clear. A majority of students indicated that sometimes they understood the expected product. Students usually understood the criteria by which their products were judged.

e. A majority of the learning coordinators were not aware of guidelines for deciding the point value of an activity. In most cases the learning coordinators agreed that guidelines would be helpful. Most learning coordinators were not aware of existing guidelines for assigning credit values.

8. Recommendations and Relevant Program Actions

This part of the formative evaluation section lists the recommendations and relevant program actions. There is no implication that the formative evaluation recommendations caused program actions. The process is interactive in nature; in fact, the action taken by the staff may have preceded the initial recommendation by evaluation.

Recommendations:	Action:
a. Learning coordinators should be provided with the vehicles for developing appropriate learning experiences.	a.1. Perceived as a problem in September, 1973.
	a.2. Developed Procedural Manual for using forms.
	a.3. Assigned a person to manage the Learning Lab; resources coordinator hired in March, 1974.

Recommendations:	Action:
	a.4. Held in-service training for total staff.
	a.5. Conducted a mini-study on instructional material usage.
	a.6. Providing Stabilization Management Team with additional data.
	a.7. Document decisions.
b. Guidelines should be developed for assigning point value and credit.	b.1. Recognized as a problem in October, 1973.
	b.2. Conducting a credit translation study during March, 1974.
	b.3. Provide results to Stabilization Management Team.
	b.4. Document decisions.
c. Communication between learning coordinators and students in the areas of (1) purpose of Activity Sheets, (2) products expected, and (3) understanding the evaluative criteria should be strengthened.	c.1. Provide Stabilization Management Team with appropriate data.
	c.2. Document decisions.

F. Subsystem: Instructional Delivery (Other Issues)

1. Question 1: Who is responsible for updating the Program Profile and Program Descriptor?/Staff time?/Necessary information available from forms?

   a. Data Sources: Learning coordinators

   b. Instruments: Questionnaire

   c. Administration Schedule: January

   d. Data: Learning coordinators were asked the following questions:

      (1) How frequently do you review and update the students' Program Profiles?

          1 Once every semester unless students' interests change; 2 Once every month;

          2 Once every nine weeks

      (2) What information do you use to update the Profiles?

          4 Transcripts; 2 Test scores;

          4 Student expressed interests;

          4 Previous activities; 1 Up-dated information on student records

      (3) Is there any information you do not have that you would find useful in updating the Program Profile?

          2 Yes; 3 No

(4) How frequently do you prepare new Program Descriptors for a student?

1 Once a semester; 2 Every nine weeks; 1 Only once; 1 Once or twice a semester

(5) What information do you use in updating the Descriptor?

3 Transcripts; 5 Program Profiles; 5 Student input; 4 Records of students; Other (Previous Activity Sheets and student interests)

(6) Is there any information you do not have that you would find useful in updating the Descriptor?

3 Yes; 2 No

(7) If yes, what information is needed?

(a) A valid and comprehensive set of concepts and objectives for students to pick from

(b) Resources

(c) Transcripts

(d) Catalogue of courses from the traditional high school

2. Question 2: What are the reasons for leaving the AEL/EBCE Program?

   a. Data Sources: Students

   b. Instruments: Questionnaire

   c. Administration Schedule: Whenever a student leaves the program.

   d. Data: Eleven students of ninety-five have returned to their home high schools since September, 1973 for the following reasons:

      (1) Schedule conflicts (sports and jobs) (2)

      (2) Part-time job because of site placement (2)

      (3) Parents dissatisfied and transportation (2)

      (4) Transportation (1)

      (5) Unwilling to fill out necessary forms (1)

      (6) Program incomplete for student's needs (1)

      (7) Don't know and beyond our control (2)

3. Question 3: a. How are learning coordinators recruited? b. What are/should be their qualifications? c. Training for role? d. What is their role, duties and responsibilities?

   a. Data Sources: Learning coordinators; Design staff

   b. Instruments: Questionnaire

   c. Administration Schedule: December; January

   d. Data:

      (1) The learning coordinators were asked to respond to the following questions:

(a) What are/should be learning coordinators' qualifications?

Yes	No	
3	2	Philosophy, nature and operation of EBCE Program
4	1	Role of experience sites in EBCE
4	1	Purpose, relationships and use of the various forms used in planning and monitoring students
1	4	Developing appropriate sequences of activities and individualized instruction
1	4	Evaluating students' progress and individualized instruction
1	4	Writing behavioral objectives

(b) Based on the previous six items, indicate what training you think learning coordinators should have.

5 All items are necessary

(c) Estimate the total number of hours of training you received in preparation for your duties as a learning coordinator.

i. Average number of hours, 33.2

ii. Range of no hours to 80 hours

(d) Did you receive any other training to prepare you to be a learning coordinator? (Not given by AEL/EBCE)

3 Yes; 2 No

(e) What kind of training do you think a new learning coordinator should receive?/Indicate topics to be covered and give a rough estimate of the amount of time you think would be appropriate.

i. Learning Coordinator One: Plus observation of a learning coordinator in action and supervised interaction with students. Total time needed is two weeks.

ii. Learning Coordinator Two: Individualized education, filling out forms and program logistics, supervised internship, and experience site relations. Total time needed is three weeks.

iii. Learning Coordinator Three: Guidelines for assigning points and credit, overview in the area of the learning coordinator task, the purpose of EBCE, writing Activity Sheets, and overview in the areas on non-expertise, filling out Program Descriptors and Profiles, and looking at the role of experience sites. Total time needed is approximately three days.

iv. Learning Coordinator Four: The philosophy, nature and operation of EBCE, the role of experience sites, purpose and relationship of the various forms, developing an appropriate sequence for evaluating student products, the basic philosophies and goals of EBCE, and assigning new learning coordinators to work closely with those who have experience. Total time needed is approximately two days.

(2) The Design staff was asked to respond to the following questions:

(a) How were learning coordinators recruited and what was the population from which they were obtained? Recent college graduates and those with secondary teaching experience.

(b) What are essential or desirable qualifications of learning coordinators?

   i. Competencies in all areas

   ii. College degree, not necessarily in education

   iii. Strong social science background with minors in English and basic counseling and guidance

(c) What previous experience would be essential or desirable?

   i. One or two years experience at the secondary level, preferably in an innovative/experimental school

   ii. Some previous community experience, such as volunteer activities at churches, colleges, the arts, sports, and community counseling

(d) What personal characteristics?

   i. Warm, understanding, attention to small duties, and oriented to people

   ii. Outgoing, articulate, tenacious, ability to relate well to kids and employers, and commitment to what they are asked to do

   iii. Learning coordinators should be flexible, outgoing, like meeting new people, enjoy new situations, and be highly verbal

(c) After a learning coordinator is hired, what kind of training does he or she receive?

The major training emphasis is aimed at explaining the system and how it is supposed to operate; emphasis has been placed on how one does a job and not on why it is necessary for a job to be done a certain way. On-the-job training with periodic formal in-service training sessions basically is a sink-or-swim process in a changing situation.

(f) What kind of training should new learning coordinators have?

  i. There must be training in new areas of expertise; for instance, if learning coordinators are communication specialists, then math, science, human growth and development, individual differences, etc. should be stressed in their training.

  ii. The learning coordinators need to know why they need to do certain things; for example, they need to know how to dress when going to an employer, how to treat employers, how to recognize the value of the program to employers and how to speak clearly to employers.

  iii. Learning coordinators should know how to use the system; more important is that the learning coordinators need to conform to certain behaviors for the good of the program, such as the dress code.

3. Question 3: What is the role of the learning coordinator?
   a. Data Sources: Operation staff
   b. Instruments: Questionnaire
   c. Administration Schedule: November
   d. Data: The following ten task statements reflect the roles and duties of the learning coordinators.
      (1) Learning coordinators orient new students to the intent and workings of the EBCE Program in order to inform and prepare students for entry into EBCE. They use descriptive program materials presented in large group meetings and individual conferences with students. The orientation must be comprehensive and accurate and accomplished within a predetermined schedule using prepared materials. Learning coordinators use their discretion on style and method of presenting orientation.
      (2) Learning coordinators develop and maintain a Program Profile for each assigned student

to provide a cumulative record and a description of the student's academic needs and interests in order to build the student's program. They use small group and individual conferences to record information from student's high school records, achievement test scores and formalized interview data. Format and maintenance of Profiles are prescribed, but method of interview is discretionary.

(3) Learning coordinators develop and maintain a Program Descriptor for each assigned student to provide and track specific information regarding the student's academic program and career placements. They use prepared forms and have conferences with the student to obtain the needed information. Format and maintenance of the Descriptor are prescribed, but conferences vary according to individual coordinator style.

(4) Learning coordinators monitor academic/career experiences for assigned students to maintain a personalized and comprehensive program of learning for each student. They use Cross Reference Catalogue, Program

Profile, *Program Descriptor*, related Activity Sheets, and *Site Visit Report* form to assure that a student's program maintains a high level of logical consistency and relevance. They use discretion on the emphasis and timing of using the various documents and techniques for monitoring students' programs.

(5) Learning coordinators access assigned students to academic/career experiences for the purpose of providing relevant and motivating learning experiences related to their identified interests and needs. They use students' *Program Profiles*, *Program Descriptors*, Activity Sheets, and the *Cross Reference Catalog* system according to specified instructions but use some discretion on techniques to develop Activity Sheets that help a student meet his general and specific needs to be consistent with student's *Program Profile* and *Program Descriptor*.

(6) Learning coordinators contact and visit experience sites for the purpose of placing students, monitoring students' development, maintaining communications and good relations with experience sites and resource persons. They use *Experience Site Learning Guides* and *Exploration Guides*. Coordinators exercise a high

degree of discretion on how to conduct an experience site visit.

(7) Learning coordinators request, secure and provide special counseling for students to assist them in program and personal development and guidance problems. They use the Guidance Handbook and the Operational Guidelines. They exercise some discretion in determining appropriate techniques and procedures for individual students.

(8) Learning coordinators help to solve student logistical problems, such as arranging transportation with chauffeur in conjunction with students' other logistical needs.

(9) Learning coordinators meet together at regular intervals to coordinate site placement and development of students' programs. They use Site Request forms and Program Descriptors.

(10) Learning coordinators make regular evaluations of student progress for assessment purposes, providing appropriate information to students, parents, EBCE and home schools. They use evaluation forms and students' Program Descriptor and Activity Sheets. They exercise discretionary consideration in evaluating students' goal setting and goal accomplishment in relation to students' program development.

4. Question 4: Is an efficient and effective information storage and retrieval system available to learning coordinators to fulfill their responsibilities?
   a. Data Sources: In-house materials; learning coordinators
   b. Instruments: Questionnaire
   c. Administration Schedule: January
   d. Data: Learning coordinators were asked the following questions:
      (1) What are the sources of information? Sources of information are contained in Table 3-7.
      (2) How frequently do you encounter difficulties?

          2 Often; 4 Occasionally
      (3) Do you feel the various procedures and duties are adequately documented in the *Operational Guidelines*?

          2 Yes; 2 No

5. Question 5: What were student perceptions of experience sites?
   a. Data Sources: Students
   b. Instruments: Questionnaire
   c. Administration Schedule: After every placement

TABLE 3-7

SOURCES OF INFORMATION FOR LEARNING COORDINATORS

	Not at all Helpful				Very Helpful
	1	2	3	4	5
Program Area Descriptors				1	4
Learning Guides	1		2	1	1
In-House Guide to Lab Materials		1		2	2
Core Activity Sheets	3	1			1
Cross Reference Catalogue				2	4

d. Data: Students were asked to respond to the following questions:

(1) Was this one of the experience sites you had selected on the experience selection form filled out during orientation?

62% Yes; 38% No

(2) Estimate the percentage of time the experience resource person spent with you while you were at the site.

4 0%; 14 1-25%; 6 26-50%;

17 51-75%; 20 76-100%

(3) My overall impression of the person I worked with mostly at the above experience site is: (check the appropriate space)

82% Liked very much; 3% No feeling;

12% Liked some; 3% Disliked some

(4) I would describe the experience resource person as (place one check in the appropriate box):

(a) 50% Very helpful; 12% Little helpful

18% Much helpful; 3% Not helpful

17% Helpful;

(b) 45% Always available; 2% Seldom available

28% Frequently available; 2% Never available

23% Available

(c) 35% Very warm; 3% Cold

39% Warm 2% Very cold

21% ?

(d) 45% Very interested in me

19% Much interested in me

22% Interested in me

9% Slightly interested in me

5% Not interested in me

(e) 47% Very excited about his work

45% Somewhat excited about his work

11% ?

3% Somewhat uninterested in his work

0% Did not like his work

(5) While at the experience site I was treated mostly like (choose one).

21% A student; 62% An employee; 17% A guest

(6) I found that while I was at the experience site, I:

29% Observed mostly

39% Participated a great deal

3% Loafed mostly

2% Studied mostly

27% Observed and participated about equally.

(7) If you were asked to grade the experience site, what letter grade would you assign? (Circle the appropriate response.)

51% Excellent; 1% Poor
37% Above average; 1% Very poor
10% Average

(8) If you were asked to grade the experience resource person, what letter grade would you assign? (Check the appropriate response.)

55% Excellent; 5% Poor
26% Above average; 2% Very poor
12% Average

6. Question 6: What were employer perceptions of EBCE students?

a. Data Sources: Employers

b. Instruments: Questionnaire

c. Administration Schedule: After every site placement

d. Data: The employers were asked to respond to a series of statements about students' personal qualities, work and performance. The scale was a five-point scale, ranging from Excellent to Poor.

	Excellent	Above Average	Average	Below Average	Poor
$\bar{X}$=	4.43	7.39	12.08	.69	.04

7. Conclusions

a. Learning coordinators vary in the frequency of updating the *Program Profiles* from once a semester to once every month. Even though there was agreement among the learning coordinators concerning the information needed, learning coordinators varied from once every nine weeks to once a year in updating the *Program Area Descriptors*. Even though there was agreement among the learning coordinators concerning the information needed, the learning coordinators indicated additional information is needed, such as a valid and comprehensive set of concepts and objectives for students to pick from, transcripts, and a catalogue of courses from traditional schools.

b. Students who returned to their home high schools indicated that the major reasons were not due to the program but to extraneous reasons beyond the control of the program.

c. Learning coordinators were in relative agreement about the qualifications of learning coordinators. They were in complete agreement on training needed. The learning coordinators indicated the amount of time spent in training ranged from no hours to 80 hours with an average of 33.2 hours.

d. The Design staff indicated qualifications of learning coordinators could include these: college degree, not necessarily in education; general competency in all areas; and strong social science background with minors in English and basic counseling. The Design staff indicated two types of previous experience were important: some secondary teaching (innovative or experimental school) and community experience. The Design staff was in partial agreement concerning the personal characteristics of learning coordinators.

e. The learning coordinators' role is classified into ten task statements. These statements have been verified by the learning coordinators.

f. Learning coordinators were in partial agreement that *Program Area Descriptors*, *In-House Guide to Laboratory Materials* and the *Cross Reference Catalogue* were very important sources of information. Learning coordinators did not reach a consensus on whether procedures and duties are adequately documented in the *Operational Guidelines*.

g. Students indicated a positive attitude toward their experience site placements. A majority of the students indicated that the resource person spends 5 percent to 100 percent of his time with them at the site. When students responded to the questionnaire, they indicated 82 percent of the time that they liked the resource person very much. The students perceived themselves as employees, indicating they had some hands-on experiences at the site. Fifty-one percent of the students rated the experience sites as excellent. Fifty-five percent rated the resource persons as excellent.

h. Employers rated students who were placed at their sites above average in both personal qualities, and work and performance qualities.

8. Recommendations and Relevant Program Actions

This part of the formative evaluation section lists the recommendations and relevant program actions. There is no implication that the formative evaluation recommendations caused program actions. The process is interactive in nature; in fact, the action taken by the staff may have preceded the initial recommendation by evaluation.

Recommendations:	Action:
a. The timelines for updating the *Program Profile* and the *Program Area Descriptor* should be examined.	a.1. Provide information to the Stabilization Management Team. a.2. Document decision.
b. A training packet for learning coordinators should be developed. It should include preservice, internship and in-service training.	b.1. Realized there was a problem with in-service training. b.2. Developed an in-service training packet in December, 1973.

Recommendations:	Action:
	b.3. Provide information concerning preservice and internship packets to the Stabilization Management Team. b.4. Document decision.
c. Information Storage and Retrieval System should be re-examined in light of the learning coordinators' concerns.	c.1. Provide information to the Stabilization Management Team. c.2. Document decisions.
d. The procedures and duties contained in the Operational Guidelines should be studied.	d.1. Conduct a study concerning the adequacy of the Operational Guidelines. d.2. Report findings to Stabilization Management Team. d.3. Document decisions.

VIII. USE OF CAREER MATURITY INVENTORY IN FORMATIVE EVALUATION

EBCE students were administered the Career Maturity Inventory in September, 1973 and a random sample of 21 EBCE students were administered the instrument at the end of the first semester.

Scores were determined for each student on each of the following scales: Attitude Scale, Knowing Yourself, Knowing About Jobs, Choosing a Job, Looking Ahead, and What Should They Do. Different scores were calculated for each student over all six scales. A mean score was calculated for each of the six scales, and a t statistic was used to identify significant differences.

A. Preliminary Findings

The analysis of data derived from the Attitude Scale indicated the group of students tested at the end of the semester experienced positive growth when compared to the group tested in September. The differences between the groups were not significant at the .05 level. The data for the five Competency Scales indicated a negative trend when comparisons were made between the two groups. The scale, Knowing About Jobs, was the only comparison that was significant at the .05 level (see Table 3-8). Since comparison group data were not available, conclusions could not be drawn.

B. Relation To Formative Evaluation

The data did indicate possible questions which should be addressed. These questions were formative in nature. The decision was made to use the midyear testing data from the fall for formative evaluation information. The questions raised by the data were the following:

1. Is the program the major reason for the negative trend indicated by the Career Maturity Inventory?
2. Do the objectives and concepts for the AEL/EBCE Program match the items in the Career Maturity Inventory?
3. Is the Career Maturity Inventory a good instrument?

TABLE 3-8

RESULTS OF CAREER MATURITY INVENTORY
(BEGINNING OF YEAR SCORES VS. MID-YEAR SCORES)

	Mean of Individual Differences (n=21)	Sd	t	P
Attitude Scale	1.48	5.57	1.19	
Knowing Yourself	- .57	3.74	- .68	
Knowing About Jobs	-1.38	2.30	-2.68	.05
Choosing a Job	- .62	2.61	-1.06	
Looking Ahead	- .48	3.69	- .58	
What Should They Do	-1.33	2.85	-2.09	

C. Recommendations Concerning the Career Maturity Inventory

The recommendations and relevant program actions are as follows:

Recommendations:	Actions:
1. The program should be examined in relation to the Competency Scales measured in the Career Maturity Inventory.	1.a. Provide information to Stabilization Management Team.
	1.b. Document decision.
2. The items in the Career Maturity Inventory should be examined in relation to the objectives of the EBCE Program.	2.a. Analyze items in terms of objectives; assigned to Evaluation and Stabilization Management Team.
	2.b. Document decision.
3. The technical structure of the Career Maturity Inventory should be examined.	3.a. Analyze the structure of the Career Maturity Inventory.
	3.b. Report findings.

SECTION 4

Interim Evaluation Report

Summary,

Recommendations and Program Actions

I. INTRODUCTION

This section provides an overview of the major findings, conclusions, and implications contained in the summative and formative sections of this report. Since this is an interim evaluation report, summative findings are inconclusive and most formative findings are incomplete. Both are based on results of evaluation efforts only through February, 1973. These results will be used for program development, revision, and refinement stemming from decisions made by the Stabilization Management Team (SMT) for the remainder of the fiscal year. Actions taken by the Stabilization Management Team are being documented and their effects on the ongoing AEL/EBCE Program will continue to be evaluated.

II. FINDINGS AND CONCLUSIONS

The major findings were assessed in five basic areas: (1) attitudes toward EBCE, (2) comparison of student groups, (3) communications, (4) evaluation instruments, and (5) certain elements of program operations.

A. Attitudes Toward EBCE

Positive attitudes were found toward the concept of experience-based career education. Former participants of the AEL/EBCE Program graduating in 1973 and also experience site contact and resource persons expressed very positive attitudes toward the program. Parents and current students were especially strong in expressing positive attitudes toward the EBCE Program.

There are several plausible explanations for the very positive attitudes of all groups. Two will be considered. First, positive attitudes could result from the fact that the EBCE Program is meeting the career and educational expectations of students, parents, graduates, and employers. A second explanation might be simply that participation in an experimental alternative educational program accounts for these positive attitudes. Based on the number of groups tested, the difference in the composition of these groups, and the variety of information-gathering methods used, it has been tentatively concluded that the positive opinions reflect genuine program impact, as well as the "halo" associated with special treatment in a research and development program.

B. Comparison of Student Groups

At the time of fall enrollment the AEL/EBCE students differed from the comparison groups in several specific ways. All findings are based on an initial screening and analysis of high school records and pre-test results. The following are the four major differences:

1. The EBCE students on an average were absent from school a greater amount of time than were students in either comparison group. The statistically significant differences were based on t-test applied to attendance ratios.
2. The grade point average of EBCE students was lower than the average of students in either of the comparison groups.
3. Analysis of results of the initial administration of the Career Maturity Inventory indicated that EBCE

students received significantly lower scores on the Attitude Scale and significantly lower scores on one sub-scale, "Looking Ahead," of the Competence Test than either comparison group. The EBCE students' scores were significantly lower than the 12th grade random sample on the Competence Test subscale, "Choosing a Job".

4. Analysis of results of the Educational Development Series Achievement Tests show that EBCE students scored lower on the reading and math subscale than the students in either of the comparison groups, but the differences were not significant in Scheffe' analysis.

These comparison findings are leading the Stabilization/Evaluation Unit staff to generate hypotheses and formulate a number of potentially researchable questions:

1. Does the AEL/EBCE Program attract those students who are dissatisfied with traditional or existing educational programs?
2. Does the AEL/EBCE Program attract those students who are considered in traditional or existing educational programs as "high risk clients" (e.g., low academic achievers, potential dropouts, or poor attenders)?
3. Does the AEL/EBCE Program attract students who are genuinely interested in exploring careers?
4. Does the AEL/EBCE Program attract students who are self-motivating and independent?

C. Communications

It appears that communication (i.e., generation of relevant information and feedback of responses) between EBCE staff and employers, parents, and students needs improvement. This finding emerges from the interactive daily experiences of Operations staff, students, and experience site personnel. It is sufficiently supported by questionnaire responses from all groups to warrant continued attention to its many facets by all EBCE staff, and especially the Stabilization Management Team.

One possible explanation for this lack of communication is that products which necessarily facilitate interaction were not developed prior to December, 1973. For example, use of Experience Site Learning Guides causes mandatory interaction between AEL/EBCE staff, experience sites, and students. Another explanation is that AEL/EBCE staff have not yet sufficiently recognized the demand for extensive communications with all groups.

D. Instruments

It appears that the instruments being used to assess the summative hypotheses are independent in terms of the information which each elicits. A factor analysis was used to determine the amount of overlap between summative evaluation instruments. On the basis of the analysis, the aggregated pre-test data clustered into eight factors, each factor relating to a specific instrument. It can, therefore, be concluded that the number of instruments used in testing cannot be reduced on the grounds of overlap and redundancy.

E. Elements of Program Operation

Certain elements of the AEL/EBCE Program are now stable.

1. It appears that the process for site analysis and the development of Experience Site Learning Guides can be implemented successfully.
2. It appears that the process which has been designed to deliver instruction has stabilized. The instructional products have not been yet evaluated, however.
3. It appears that the process used for the third recruitment can be used successfully. It has not been fully evaluated, but preliminary data support this conclusion.

III. RECOMMENDATIONS AND RELEVANT PROGRAM ACTIONS

This part of the formative evaluation section lists the recommendations and relevant program actions. There is no implication that the formative evaluation recommendations caused program actions. The process is interactive in nature; in fact, the action taken by the staff may have preceded the initial recommendation by evaluation.

Recommendations:	Actions:
A. Attitudes toward EBCE should be re-examined to determine if the positive findings result from experimental conditions or the program.	A.1. Do further testing on attitudes toward EBCE.
	A.2. Provide results of testing to Stabilization Management Team for decisions on program development.

Recommendations:	Actions:
	A.3. Document decisions.
	A.4. Evaluate decision outcomes.
B. A study of existing differences between EBCE students and other comparison groups should be re-examined when analyzing post-test results.	B.1. Inform Stabilization Management Team of differences between groups.
	B.2. Design data strategy for post-test data.
	B.3. Report findings to Stabilization Management Team.
	B.4. Report findings to NIE.
C. Research questions about differences in student groups should be re-examined.	C.1. Design evaluation scheme for testing hypotheses associated with each question.
	C.2. Report findings to Stabilization Management Team.
D. Communication between AEL/EBCE staff and all target groups should be re-examined.	D.1. Inform Stabilization Management Team of the problem of communication.
	D.2. Design strategy to solve problem.
	D.3. Evaluate solution(s) to problem.
E. Additional analysis on aggregate post-test data should be done to determine if instruments remain mutually exclusive.	E.1. Repeat analysis strategy discussed in summative evaluation section.
	E.2. Report findings.

Recommendations:	Actions:
F. The process for delivering instruction should be analyzed on a continuous basis.	F.1. Report findings of analysis to Stabilization Management Team.
	F.2. Continue formative evaluation of processes.
	F.3. Report additional findings to Stabilization Management Team.
	F.4. Document decision.
	F.5. Evaluate decision outcomes.
G. The products for delivering instruction should be evaluated.	G.1. Design product evaluation scheme.
	G.2. Evaluate products.
	G.3. Report findings of evaluation to Stabilization Management Team.
	G.4. Document decisions.
	G.5. Evaluate decision outcomes.

INTERIM EVALUATION REPORT

MARCH 15, 1974

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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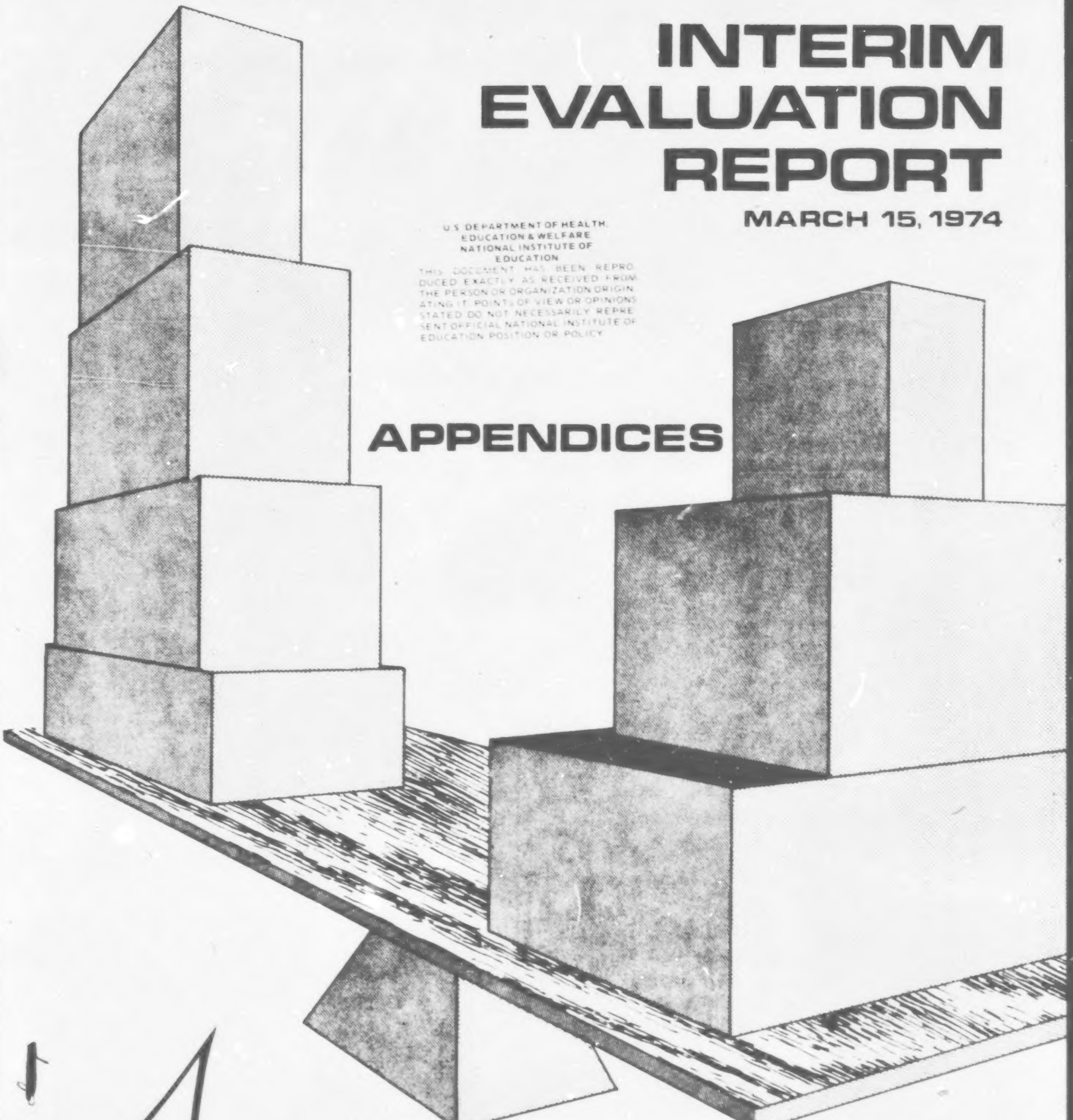
APPENDICES



CE 004358

EXPERIENCE BASED CAREER EDUCATION
APPALACHIA EDUCATIONAL LABORATORY, INC.
CHARLESTON, WEST VIRGINIA

188

INTERIM EVALUATION REPORT

MARCH 15, 1974

APPENDICES

EXPERIENCE BASED CAREER EDUCATION
APPALACHIA EDUCATIONAL LABORATORY, INC.
CHARLESTON, WEST VIRGINIA

Appendix A-1

EBCE Graduate Questionnaire

APPALACHIA EDUCATIONAL LABORATORY, INC.
P. O. BOX 1348
CHARLESTON, WEST VIRGINIA 25325
304/344-8371

December 17, 1973

The Experience-Based Career Education program (the name was changed from Employer-Based to Experience-Based since you graduated) is in need of information about the status of your career since you graduated from the EBCE program.

I have enclosed a set of questionnaires to be filled out and returned to me in the enclosed envelope. Everyone should complete the white questionnaire first. Question number 10 will provide directions on who should fill out the blue and the green questionnaire. If you feel either one is appropriate for you, please fill it out. We would appreciate it if you would return the enclosed questionnaires by January 10, 1974.

Also, any additional information you could give us pertaining to you and/or EBCE would be greatly appreciated. If there is any further information which we might furnish you, we will be glad to be of assistance.

Thank you for your cooperation and if you have the opportunity, please come and visit us at anytime at the EBCE site. We are very much interested in seeing you and finding out what's happened to you since EBCE graduation.

Sincerely,

James H. Sanders
EBCE Evaluation Specialist

JHS/mjr

Enclosures

EBCE Graduate Questionnaire

DATE ______________________

NAME ______________________ SEX: M ________ F ________

PRESENT ADDRESS ______________________

____

PERMANENT ADDRESS ______________________

____

1. Marital Status

   _____ Single
   _____ Engaged
   _____ Married
   _____ Married, Separated
   _____ Divorced
   _____ Other

2. How many full time jobs have you had?

   _____ None
   _____ One
   _____ Two
   _____ Three
   _____ Four or More

3. With whom do you live?

   _____ Parents
   _____ Relatives
   _____ Friend(s)
   _____ Alone
   _____ Husband or Wife
   _____ Other

4. How often have you voted in a public election?

   _____ Not old enough
   _____ Once
   _____ Twice
   _____ Three or more times

5. Are you a volunteer worker for organizations?

   _____ Yes
   _____ No, but I'd like to
   _____ No

6. When you look back and compare the course of your career so far with people about your age, are you: (check one)

____ much less satisfied with your career than they are?
____ somewhat less satisfied with your career than they are?
____ about as satisfied with your career as they are?
____ somewhat more satisfied with your career than they are?
____ much more satisfied with your career than they are?

7. When you compare how the rest of your career is likely to turn out with how the careers of people about your age are likely to turn out, are you: (check one)

____ much less satisfied than they are?
____ somewhat less satisfied?
____ about as satisfied?
____ somewhat more satisfied?
____ much more satisfied than they are?

8. The statements below describe different types of career achievement. Please circle the appropriate number to show how satisfied you are with each of these career achievements.

	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a. The certainty of my career goals.	1	2	3	4
b. The achievement of my career goals.	1	2	3	4
c. The overcoming of difficulties in my career.	1	2	3	4
d. The path I have followed toward my career goals.	1	2	3	4
e. The speed with which I have moved toward my career goals.	1	2	3	4

9. The statements below are descriptive of various ways in which the EBCE Program you participated in may or may not have assisted you. Please circle the appropriate number to show how much affect the EBCE Program had on you.

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. EBCE helped prepare me for work.	1	2	3	4
b. EBCE helped prepare me for college.	1	2	3	4
c. EBCE helped me become a better person.	1	2	3	4
d. EBCE helped me develop my mind.	1	2	3	4
e. EBCE helped me in personal adjustment.	1	2	3	4

10. Your main present activity (check one).

____ Working full time (Answer blue questionnaire.)
____ Working part time (Answer blue questionnaire.)
____ Working housewife (Answer blue questionnaire.)
____ Working and going to school (Answer blue and green questionnaire.)
____ Going to school only (Answer green questionnaire.)
____ Housewife only
____ Unemployed - looking for work
____ Unemployed - not looking for work

EBCE Graduate Employment Questionnaire

1. How many full-time jobs (30 or more hours per week) have you held since you left the EBCE program?

____ None
____ 1 full-time job
____ 2 full-time jobs
____ 3 or more full-time jobs

2. How closely did your first job after graduating relate to your EBCE experience? (Check only one.)

____ I was employed in an occupation in which I had EBCE experiences.
____ I was employed in a related occupation.
____ I was employed in a completely different occupation.

3. Did the EBCE program adequately prepare you for your first job?

____ yes ____ no

4. What was your beginning hourly wage on the first job you had after graduation?

____ $1.59 or less per hour
____ $1.60 to $1.99 per hour
____ $2.00 to $2.49 per hour
____ $2.50 to $2.99 per hour
____ $3.00 to $3.99 per hour
____ $4.00 or more per hour

5. How did you get your first job after leaving the EBCE program? (Check one)

____ I got the job myself.
____ My family or friends helped me get the job.
____ The EBCE program helped me get the job.
____ An employment agency helped me get the job.
____ Other (specify) ____________________

6. What is your present field of work?

____

7. What is your present job title?

____

8. What is the name of the company you presently work for?

____

9. What is your present hourly wage?

____ $1.59 or less per hour
____ $1.60 to $1.99 per hour
____ $2.00 to $2.49 per hour
____ $2.50 to $2.99 per hour
____ $3.00 to $3.99 per hour
____ $4.00 or more per hour

10. What is your main reason for working?

____ Support self or family
____ Experience
____ To have a career
____ It's interesting
____ Other

11. Would you like to work at your present job 5 years from now?

____ Definitely
____ Probably
____ Uncertain
____ Probably not
____ Definitely not

12. How many hours do you work a week (average)?

____ 1-4 hours
____ 5-10 hours
____ 11-20 hours
____ 21-30 hours
____ 31-40 hours
____ over 40 hours

13. How much difficulty did you have getting work?

____ No difficulty
____ Some difficulty
____ Much difficulty

14. Would you rather have some other job?

____ yes ____ no

If yes, what kind of job would you prefer?

____ The same kind of work, but for a different kind of employer.
____ A different kind of work.

15. Have there been any jobs you tried for but didn't get?

____ yes ____ no

If yes, why do you think you did not get the job or jobs?

____

____

____

____

16. Below are listed some items describing various aspects of jobs. Please circle for each item, the number that best describes how satisfied you are with this aspect of your present job.

1 = Very dissatisfied
2 = Fairly dissatisfied
3 = Neither satisfied nor dissatisfied
4 = Fairly satisfied
5 = Very satisfied
NA = Not applicable

	Very Dissat.				Very Sat.	Not Applicable
a. Earnings	1	2	3	4	5	NA
b. The duties of the job	1	2	3	4	5	NA
c. Job security	1	2	3	4	5	NA
d. The amount of responsibility I have	1	2	3	4	5	NA
e. The amount of variety in my work	1	2	3	4	5	NA
f. The amount of prestige I have	1	2	3	4	5	NA
g. The degree of difficulty of my work	1	2	3	4	5	NA
h. The work load	1	2	3	4	5	NA
i. Opportunity for promotion or advancement	1	2	3	4	5	NA
j. Benefits (insurance, sick pay, pension plans, etc.)	1	2	3	4	5	NA
k. Opportunities to use my initiative or judgment	1	2	3	4	5	NA
l. Opportunities to use my knowledge and ability	1	2	3	4	5	NA

m.	Opportunities to share interests with those in my line of work	1	2	3	4	5	NA
n.	Getting along with fellow workers	1	2	3	4	5	NA
o.	Getting along with those under me	1	2	3	4	5	NA
p.	Getting along with other people I meet in my work	1	2	3	4	5	NA
q.	The kind of supervisor I have	1	2	3	4	5	NA
r.	Opportunities to manage or supervise other people and activities	1	2	3	4	5	NA
s.	The degree to which my job enables me to live the kind of life I want	1	2	3	4	5	NA
t.	Opportunities to benefit others through my work	1	2	3	4	5	NA
u.	Physical working conditions	1	2	3	4	5	NA
v.	Opportunities to be creative and inventive	1	2	3	4	5	NA
w.	Opportunities to do a good job	1	2	3	4	5	NA
x.	My skill at working with people	1	2	3	4	5	NA

17. What specific things about the EBCE program have you found to be the most useful to you in your present job?

18. Based on your experiences, what suggestions do you have for improving the EBCE program?

EBCE Post High School Training Questionnaire

1. What type of training program are you now participating in? (Check one)

____ 4-Year college or university
____ Junior or community college
____ Vocational or technical school
____ Business school
____ Trade school
____ Other (specify) ____

2. What is the main training program you plan to complete? (Check one)

____ Some college
____ Junior or community college
____ Vocational or technical school
____ Trade or business school
____ 4-Year college
____ Master's Degree (or 5-year program)
____ Doctor's Degree (or 7 year program)
____ Other (specify) ____

3. How much difficulty did you have in getting in the school?

____ None ____ Some ____ A Great Deal

If you marked Some or A Great Deal, would you briefly explain. __________

____

____

4. What is your main reason for going to school? (Check one)

____ To pursue a chosen career
____ To find a career
____ Could not find work
____ Did not know what else to do
____ Parent or friends pressure
____ Other (specify) ____

____

5. How well did the EBCE program prepare you for your training program?

____ Very helpful
____ Somewhat helpful
____ Not helpful

6. What career area are you now pursuing?

____ None
____ Specific career (explain) ______________________________________

____

7. What aspects of the EBCE program were particularly useful or helpful to you in your training program?

____

____

____

____

____

8. What more would you have liked to have received from the EBCE program to better assist you in your present training program?

____

____

____

____

____

9. What changes would you recommend be made to improve the EBCE program?

____

____

____

____

____

AEL/JHS/12-15-73

Appendix A-2

Student Opinion Survey

Student Opinion Survey

This survey is meant to give you an opportunity to express your opinions about the Career Education Program you have been participating in. Most of the questions are to be answered on a scale of numbers from ① to ⑤. The words at the top and bottom of each set of questions tell you what the numbers mean. A ① may mean something like "Definitely No"; if you feel very strongly that the answer to the question is NO, then you should circle the ①. A ⑤ may mean "Definitely Yes"; if you feel very strongly that the answer is YES, then you should circle the ⑤. The numbers in between (2,3,4) mean that your opinion is neither "Definitely No" nor "Definitely Yes", but somewhere between them. You should circle the number that is closest to your real opinion of what the question is asking about. Some scales have different words, but they always work the same. Read the words above and below the numbers so you know what the numbers mean. Read the questions carefully, and circle the number which is the closest to your opinion. There are no right or wrong answers; your thoughts and feelings are the important things in this survey. The answers students give will be used to help determine how well the program is doing now and to improve it in the future. Remember to circle a number to answer each item. If you have any questions while you're completing the survey, just ask for assistance.

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION

		Definitely No				Definitely Yes
1.	Have you liked attending the Career Education Program?	1	2	3	4	5
2.	If you had it to do over again, do you think you would decide to participate in the Career Education Program?	1	2	3	4	5
3.	Have the activities available in the Career Education Program been interesting to you?	1	2	3	4	5
4.	In the Career Education Program have you felt that you could progress at your own rate?	1	2	3	4	5
5.	Have you seen much of a relationship between your activities in the learning center and the careers you have learned about?	1	2	3	4	5
6.	Do you get enough feedback about how well you are doing in the program?	1	2	3	4	5
7.	Have you had enough choice in deciding the amount of time you spend at employer sites?	1	2	3	4	5
8.	Have you had enough choice in deciding the amount of time you spend in learning academic subjects?	1	2	3	4	5
9.	Have you had enough choice in deciding what you do at employer/resource sites?	1	2	3	4	5
10.	Have you had enough choice in selecting the types of employer/resource sites you visit?	1	2	3	4	5
11.	Do most people receive much satisfaction from their work?	1	2	3	4	5
12.	Do you think that if a person works hard enough, he can achieve anything?	1	2	3	4	5
		Definitely No				Definitely Yes

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION

		Definitely No				Definitely Yes
13.	Do you think that the main reason a person works is to earn enough money to live?	1	2	3	4	5
14.	In general, are you looking forward to working in a job?	1	2	3	4	5
15.	Do you think you have much choice of occupations?	1	2	3	4	5
16.	In general, were the employer/resource personnel involved in the Career Education Program aware of your needs and interests?	1	2	3	4	5
17.	In general, at employer/resource sites did you get to actually do things, rather than just listen?	1	2	3	4	5
18.	In general, have the employer/resource sites you've visited been interested in the Career Education Program?	1	2	3	4	5
19.	In general, have you felt welcome at the employer/resource sites?	1	2	3	4	5
20.	Do most of the employer/resource sites you have worked with let you know how you're progressing?	1	2	3	4	5
21.	Through your experiences in the Career Education Program have you learned a lot about opportunities for the future?	1	2	3	4	5
22.	Do you plan to get a secondary school diploma?	1	2	3	4	5
23.	Would you say the Career Education Program has helped you form career plans?	1	2	3	4	5
24.	Would you say you've learned a lot while attending the Career Education Program?	1	2	3	4	5
		Definitely No				Definitely Yes

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION

	Poor				Excellent
25. How well organized and coordinated do you think the Career Education Program has been?	1	2	3	4	5
26. How would you rate the general quality of the Career Education Program staff?	1	2	3	4	5
27. How would you rate the personal counseling available in the Career Education Program?	1	2	3	4	5
28. How would you rate the career counseling available in the Career Education Program?	1	2	3	4	5
29. How would you rate the general quality of the Career Education Program employer/resources you've worked with?	1	2	3	4	5
	Poor				Excellent

	Not at all Important				Extremely Important
30. How important was each of the following factors in deciding to join the Career Education Program?					
a. I wanted more freedom/independence	1	2	3	4	5
b. I wanted to choose my own learning style	1	2	3	4	5
c. I wanted to learn about careers	1	2	3	4	5
d. I didn't like my previous school	1	2	3	4	5
e. I wanted to prepare for a job	1	2	3	4	5
f. I was bored with school	1	2	3	4	5
g. I heard the Career Educaiton Program was easy	1	2	3	4	5
h. Other (specify) ____________	1	2	3	4	5
	Not at all Important				Extremely Important

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION

	Much Less		About the Same		Much More
31. In comparison with regular schools, how much opportunity did the Career Education Program provide you for learning about occupations?	1	2	3	4	5
32. In comparison with regular schools, how much opportunity did the Career Education Program provide you for general learning?	1	2	3	4	5
33. In comparison with past experiences in regular schools, how motivated are you to learn in the Career Education Program?	1	2	3	4	5
	Much Less		About the Same		Much More

34. During this school year have you worked outside of home for money?

- a. ☐ No
- b. ☐ Yes, less than 10 hours a week
- c. ☐ Yes, between 10 and 20 hours a week
- d. ☐ Yes, between 20 and 30 hours a week
- e. ☐ Yes, more than 30 hours a week

35. If you have an outside job, does it interfere with anything listed below?

- a. ☐ I don't have an outside job
- b. ☐ My job doesn't interfere with any other activities
- c. ☐ It interferes with my school work
- d. ☐ It interferes with my social life
- e. ☐ It interferes with my extracurricular activities

36. What changes, if any, would you like to see in the Career Education Program?

____

____

____

37. Below are listed several areas of possible importance for a student to learn. Please rate each in terms of how important you feel it is for a student to learn, and how well you feel the program is accomplishing each.

		How Important Do You Feel This Learning Is?					How Effective Do You Feel the Project Has Been in Accomplishing This Learning?				
	Students learn to:	Not Important				Highly Important	Not Effective				Highly Effective
a.	Perform specific occupational skills	1	2	3	4	5	1	2	3	4	5
b.	Be punctual and organize their time	1	2	3	4	5	1	2	3	4	5
c.	Assume responsibility for themselves	1	2	3	4	5	1	2	3	4	5
d.	Make decisions and follow through	1	2	3	4	5	1	2	3	4	5
e.	Communicate with others in a mature way	1	2	3	4	5	1	2	3	4	5
f.	Be aware of more career opportunities	1	2	3	4	5	1	2	3	4	5
g.	Work with others	1	2	3	4	5	1	2	3	4	5
h.	Evalute their own work	1	2	3	4	5	1	2	3	4	5
i.	Perform basic academic skills	1	2	3	4	5	1	2	3	4	5
j.	Think through and solve problems	1	2	3	4	5	1	2	3	4	5
k.	Have a positive attitude toward self	1	2	3	4	5	1	2	3	4	5
l.	Have a positive attitude toward work	1	2	3	4	5	1	2	3	4	5
m.	Have a positive attitude toward learning	1	2	3	4	5	1	2	3	4	5
n.	Prepare for further education	1	2	3	4	5	1	2	3	4	5
o.	Improve interpersonal and social skills	1	2	3	4	5	1	2	3	4	5
p.	Other (please specify)____________ ____________	1	2	3	4	5	1	2	3	4	5

Appendix A-3

Parent Opinion Survey

APPALACHIA
Educational Laboratory, Inc.
P. O. BOX 1348
CHARLESTON, WEST VIRGINIA 25325
304/344-8371

February 14, 1974

has now participated in the EBCE program for over one semester. Although you received a similar questionnaire about six months ago, it is extremely important that we receive some additional information from you concerning your thoughts and attitudes toward the EBCE program. This second questionnaire will be used by similar projects throughout the country. Your responses are therefore an important part of a national attempt to evaluate the EBCE project.

Your response will be carefully coded so that confidentiality will be preserved. None of the teachers or administrators of the EBCE program will see your questionnaire. They will see a summary report of all the questionnaires.

If you have any questions or concerns about any of the items, please feel free to contact me at 344-8371. Please return the questionnaire in the enclosed envelope by February 22.

Thank you for again taking your valuable time to assist us in evaluating and improving the EBCE program.

Sincerely,

James H. Sanders
Evaluation Specialist

JHS/mjr

Enclosures

Parent Opinion Survey

This survey is meant to give you an opportunity to express your opinions about the Career Education Program your son or daughter has been participating in. Most of the questions are to be answered on a scale of numbers from ① to ⑤. The phrases at the top and bottom of each set of questions indicate what the scale means. A ① may mean something like "Definitely No"; if you feel strongly that the answer to the question is No, then you should circle the ①. A ⑤ may mean "Definitely Yes"; if you feel strongly that the answer is Yes, then you should circle the ⑤. The numbers in between (2, 3, 4) indicate an opinion somewhere in between "Definitely No" and "Definitely Yes". Some scales have different phrases, but they all work the same way.

Read the phrase above the numbers so you know what the scale means, then read each question, and circle the number which is closest to your opinion. There are no right or wrong answers; your thoughts and feelings are the important things in this survey. The answers parents give will help determine how well the program is doing now and improve it in the future. Remember to circle a number for each item. Thank you for taking the time to fill out this survey.

Career Education Program

Parent Opinion Survey

1. How well does the Career Education Program compare overall with the past school experiences of your daughter or son?

Much Worse				Much Better
1	2	3	4	5

2. If you had it to do over again, would you want your son or daughter to participate in the Career Education Program?

Definitely NO				Definitely YES
1	2	3	4	5

3. How well do you think your son or daughter likes the Career Education Program compared with past school experiences?

Much Worse				Much Better
1	2	3	4	5

4. What do you think are the greatest weaknesses of the Career Education Program?

____

____

____

____

5. What do you think are the greatest strengths of the Career Education Program?

____

____

____

____

6. Have you received enough information about your son's or daughter's progress in the Career Education Program?

Definitely NO				Definitely YES
1	2	3	4	5

7. In comparison with regular schools how much opportunity did the Career Education Program provide your daughter or son for learning about occupations?

Much Less				Much More
1	2	3	4	5

8. What effect, if any, has the Career Education Program had on helping your son or daughter form career plans?

Definitely Bad				Definitely Good
1	2	3	4	5

9. In comparison with regular schools, how much opportunity did the Career Education Program provide your daughter or son for general learning?

Much Less		About the Same		Much More
1	2	3	4	5

10. In comparison with past experiences in regular schools, how motivated is your daughter or son to learn in the Career Education Program?

Much Less		About the Same		Much More
1	2	3	4	5

11. How would you rate the approaches to learning used in the Career Education Program?

Poor				Excellent
1	2	3	4	5

12. What positive changes have you noticed in your son or daughter that might be a result of participation in the Career Education Program?

____

____

____

13. What negative changes have you noticed in your son or daughter that might be a result of participation in the Career Education Program?

____

____

____

14. How often does your son or daughter talk to you about what's going on in the Career Education Program?

Almost Never				Almost Daily
1	2	3	4	5

15. About how often have you had any contact with any Career Education Program staff members?

Almost Never				Very Frequently
1	2	3	4	5

16. How many meetings have you attended during this school year where other parents of Career Education students were present?

None	1	2	3	4 or More

17. How would you rate the general quality of the Career Education Program staff?

Poor				Excellent
1	2	3	4	5

18. How would you rate the business or community resources available in the Career Education Program?

Poor Excellent

1 2 3 4 5

19. How would you rate your overall relationship with the staff of the Career Education Program?

Poor Excellent

1 2 3 4 5

20. How would you rate the enthusiasm of the Career Education Program staff?

Poor Excellent

1 2 3 4 5

21. What do you think of the occupational plans of your daughter or son?

a. ☐ There aren't any firm plans yet.

b. ☐ The plans should be changed.

c. ☐ The plans seem to be good.

d. ☐ We haven't really had a chance to discuss the plans.

22. What do you think your son or daughter will be doing a year after high school?

a. ☐ Working

b. ☐ Attending some kind of college

c. ☐ Going to a business or trade school

d. ☐ Military

e. ☐ Other (please specify) ______________________________

23. Below are listed areas of possible importance for a student to learn. Please rate each in terms of how important you feel it is for a student to learn, and how well you feel the program is accomplishing each.

	How Important Do You Feel This Learning Is?					How Effective Do You Feel the Project Has Been In Accomplishing This Learning?				
Students learn to:	Not Important				Highly Important	Not Effective				Highly Effective
a. Perform specific occupational skills	1	2	3	4	5	1	2	3	4	5
b. Be punctual and organize their time	1	2	3	4	[illegible]	1	2	3	4	5
c. Assume responsibility for themselves	1	2	3	4	5	1	2	3	4	5
d. Make decisions and follow through	1	2	3	4	5	1	2	3	4	5
e. Communicate with others in a mature way	1	2	3	4	5	1	2	3	4	5
f. Be aware of more career opportunities	1	2	3	4	5	1	2	3	4	5
g. Work with others	1	2	3	4	5	1	2	3	4	5
h. Evaluate their own work	1	2	3	4	5	1	2	3	4	5
i. Perform basic academic skills	1	2	3	4	5	1	2	3	4	5
j. Think through and solve problems	1	2	3	4	5	1	2	3	4	5
k. Have a positive attitude toward self	1	2	3	4	5	1	2	3	4	5
l. Have a positive attitude toward work	1	2	3	4	5	1	2	3	4	5
m. Have a positive attitude toward learning	1	2	3	4	5	1	2	3	4	5
n. Prepare for further education	1	2	3	4	5	1	2	3	4	5
o. Improve interpersonal and social skills	1	2	3	4	5	1	2	3	4	5
p. Other (please specify) ____________ ____________	1	2	3	4	5	1	2	3	4	5

24. How did you first hear about the Career Education Program?

____

____

____

____

25. What kinds of students do you think benefit most from Career Education Program?

____

____

____

____

Appendix A-4

Employer Questionnaire

APPALACHIA EDUCATIONAL LABORATORY, INC.
P. O. BOX 1348
CHARLESTON, WEST VIRGINIA 25325
304/344-8371

February 20, 1974

Your organization has been most helpful to the Experience-Based Career Education (EBCE) program by contributing time and resources, thus providing our students with an opportunity to learn. It is extremely important that we find out what you or your associates who work with our students think about the EBCE program. A questionnaire was developed to help us to obtain some of this needed information.

I have enclosed copies of this questionnaire and cover letter with return envelopes. I would like you to pass them on to those people in your organization who have worked most directly with our students during the current school year.

I would like to assure you that the information obtained from this questionnaire will remain confidential and will not be seen by anyone except the evaluation personnel in the EBCE project. Printed reports of the data will contain only summary information and will not contain specific names of individuals or organizations.

If there are any questions about the procedures or any of the items on the questionnaire, please feel free to call me at 344-8371. I will be glad to provide you with additional copies of the questionnaire if you so desire. I would appreciate it if the completed questionnaires were returned to me by February 27.

Thank you for taking your valuable time to provide us with this most helpful information.

Sincerely,

James H. Sanders

James H. Sanders
Evaluation Specialist

Enclosures

APPALACHIA EDUCATIONAL LABORATORY, INC.
P. O. BOX 1348
CHARLESTON, WEST VIRGINIA 25325
304/344-8371

February 20, 1974

Dear Resource Person:

The Experience-Based Career Education (EBCE) program needs information about various aspects of your involvement with EBCE students. This information will be used not only for revising the program according to your comments but also the information will be used for a national study in Career Education. The enclosed questionnaire was designed to obtain the needed information.

The information obtained from this questionnaire will remain confidential and will not be seen by anyone except evaluation personnel within the EBCE project. Printed reports of the data will contain only summary information and will contain neither specific names of individuals nor organizations.

Career Education Program (CEP) - This is the term used in the questionnaire to refer to the Experience-Based Career Education program which is funded by the National Institute of Education and being developed in the Charleston area by the Appalachia Educational Laboratory, Inc. You will probably recognize the program as the EBCE program.

Company - The Career Education Programs throughout the country are utilizing various types of community resources. In this questionnaire any cooperating community organization, whether it is a labor organization, a business, or an educational facility, will be identified by the term company or site.

Site - Same as company.

Level I, II, III

> Level I is entitled Career Exploration in the Charleston area EBCE program. It is best described as that time in which the student first looks at a career area or job.
>
> Level II is entitled Career Investigation in the Charleston area EBCE program. It is best described as that period of time after the student has explored a job site and is interested in another, more in-depth look at the career area.
>
> Level III is entitled Career Specialization Planning in the Charleston area EBCE program. It is best described as that period of time following Career Investigation when the student has, at least temporarily, decided on a chosen career and is after some specialized training or instructions in the career area or job.

If, on items 2 and 3, you have no idea which level the students were on, assume the students were on Level II.

Please feel free to contact me at 344-8371 if you have a question about the questionnaire or any of the items. Please return this questionnaire in the enclosed envelope by February 27, 1974.

Thank you very much for taking your valuable time to provide us with this most helpful information.

Sincerely yours,

James H. Sanders
Evaluation Specialist

Enclosure

Employer Questionnaire

Name of respondent ____________________

Title of respondent ____________________

Name of company ____________________

Type of company ____________________

Address of company ____________________

____

Number of employees in the company ____________________

Number of employees at the experience site ____________________

Length of time respondent has been participating with the Career Education Program

____

1. When the student is at your site, approximately how many hours do you typically spend with a student? (Man hours per week)

   Number of hours ____________________

2. Which of the following supportive services do you (or others at your site) provide for the Career Education Program (CEP) students? Check each appropriate category.

	Level I	Level II	Level III
Do you talk about job opportunities?	____	____	____
Do you talk about the students' personal problems?	____	____	____
Do you talk about activities at your site?	____	____	____
Do you tutor in an academic area?	____	____	____
Do you evaluate individual students' assignments?	____	____	____
Do you assist students in non-job related assignments?	____	____	____
Do you supervise students to perform a specific job-related task at your site?	____	____	____
Do you help plan student assignments?	____	____	____
Other (specify) ____________________	____	____	____

3. How do students spend their time at your site? Indicate the approximate number of hours per week for each category. If they are doing more than one thing at the same time, split the hours accordingly.

	Level I	Level II	Level III
Observing site activities	_____	_____	_____
Researching from site materials	_____	_____	_____
Actively performing site activities	_____	_____	_____
Talking with me	_____	_____	_____
Talking with other site personnel	_____	_____	_____
Individual study	_____	_____	_____
Other (specify) ______________________________	_____	_____	_____

4. How did you become involved with the Career Education Program? Check appropriate response(s).

_____ EBCE personnel contacted me about the program.

_____ A student talked to me about the program.

_____ Another employer talked to me about the program.

_____ Company personnel talked to me about the program.

_____ Other (specify) ____

5. Why did you become involved with the program? ______________________________

____

____

____

6. Did the Career Education Program staff provide you with enough information to help you to direct student activities at your site?

_____ yes _____ no

If you answered no, what information would have been helpful? __________________

____

7. Would you recommend to another person (potential employer or resource person) that he/she also become involved with Career Education Program?

_____ yes _____no why? ______________________________________

____

8. Describe the type of person you think should be involved with Career Education Program students.

____

____

9. To what extent has the Career Education Program had an impact on the following items?

	How Much Impact				Value of Impact		
	No Impact	Some Impact	Much Impact	Don't Know	Good Impact	Bad Impact	Don't Know
a. Quality of work performed by regular employees	____	____	____	____	____	____	____
b. Amount of work performed by regular employees	____	____	____	____	____	____	____
c. Company hiring practices	____	____	____	____	____	____	____
d. Company training practices	____	____	____	____	____	____	____
e. List other possible impacts							
______________	____	____	____	____	____	____	____
______________	____	____	____	____	____	____	____
______________	____	____	____	____	____	____	____

10. In general, do you think the Career Education Program students you have worked with are really interested in your site? Circle the appropriate number from 1 (definitely no) to 5 (definitely yes).

Definitely No				Definitely Yes
1	2	3	4	5

11. In general, do you think the Career Education Program students you have worked with are really interested in the Career Education Program?

Definitely No				Definitely Yes
1	2	3	4	5

12. How have employees at your site reacted to participation in the Career Education Program? Check one.

_____ Positive reaction
_____ Negative reaction
_____ Mixed reaction
_____ No reaction
_____ Not applicable
_____ Don't know

13. In what ways (if any) have the employees at your site benefited? Check appropriate response(s).

_____ They haven't benefited
_____ Increased their awareness of youth
_____ Motivated the regular employees to further training
_____ Reduced their workload
_____ Increased interest in their own work
_____ I don't know
_____ Other (please specify) ______________________________

14. Do you receive adequate feedback about what happens to the students after they leave your site? Circle the appropriate number from 1 (never) to 5 (always).

Never				Always
1	2	3	4	5

15. Do you receive adequate feedback about the effectiveness of your work with the students?

Never				Always
1	2	3	4	5

16. How many times and ways have you communicated with staff during this school year? Check as many as apply.

	Individual Meetings	Group Meetings	Telephone	Correspondence
Almost every day				
Once or twice a week				
Once or twice a month				
Less than once a year				
Never				

17. Below are listed several area of possible importance for a student to learn. Please rate each in terms of how important you feel it is for a student to learn, and how well you feel the program is accomplishing each.

	How Important Do You Feel This Learning Is?					How Effective Do You Feel the Project Has Been in Accomplishing This Learning				
Students learn to:	Not Important				Highly Important	Not Effective				Highly Effective
a. Perform specific occupational skills	1	2	3	4	5	1	2	3	4	5
b. Be punctual and organize their time	1	2	3	4	5	1	2	3	4	5
c. Assume responsibility for themselves	1	2	3	4	5	1	2	3	4	5
d. Make decisions and follow through	1	2	3	4	5	1	2	3	4	5
e. Communicate with others in a mature way	1	2	3	4	5	1	2	3	4	5
f. Be aware of more career opportunities	1	2	3	4	5	1	2	3	4	5
g. Work with others	1	2	3	4	5	1	2	3	4	5
h. Evaluate their own work	1	2	3	4	5	1	2	3	4	5
i. Perform basic academic skills	1	2	3	4	5	1	2	3	4	5
j. Think through and solve problems	1	2	3	4	5	1	2	3	4	5
k. Have a realistic attitude toward self	1	2	3	4	5	1	2	3	4	5
l. Have a positive attitude toward work	1	2	3	4	5	1	2	3	4	5
m. Have a positive attitude toward learning	1	2	3	4	5	1	2	3	4	5
n. Prepare for further education	1	2	3	4	5	1	2	3	4	5
o. Improve interpersonal and social skills	1	2	3	4	5	1	2	3	4	5
p. Other (please specify) __________	1	2	3	4	5	1	2	3	4	5

18. Do you plan to continue participating in the Career Education Program?

Yes _____ No _____ Don't Know _____

Why: ____

____

____

____

19. What do you think are the greatest strengths of the Career Education Program?

____

____

____

20. What do you think are the greatest weaknesses of the Career Education Program?

____

____

____

21. What other comments or recommendations about the Career Education Program would you like to make?

____

____

____

22. To what extent have you had to make changes in your normal work habits to accommodate the students?

Seldom		Often		Always
1	2	3	4	5

Specify: ____

____

____

23. To what extent does working with students interfere in any way with getting your job done?

Seldom		Often		Always
1	2	3	4	5

24. To what extent are you willing to work with students next year if the Program is continued?

Not at All		Moderately		Completely
1	2	3	4	5

25. Would you recommend to an associate that their agency become a member of the EBCE program?

Not at All		Moderately		Completely
1	2	3	4	5

Appendix A-5

Student Information Questionnaire

Student Information Questionnaire

Appalachia Educational Laboratory, Inc.
Charleston, West Virginia
September 10, 1973

NAME ______________________________ DATE ______________________

1. Are you:

   ☐ Male

   ☐ Female

2. Are you:

   ☐ White

   ☐ Black

   ☐ Oriental

   ☐ Spanish Descent (Chicano, Puerto Rican, etc.)

   ☐ Native American

   ☐ Other (specify) ______________

3. What is your current grade level (as of September 1973)?

   ☐ 10th grade

   ☐ 11th grade

   ☐ 12th grade

4. What is your birth date?

   ____________ MONTH ____________ DAY ____________ YEAR

5. What is your father's highest level of formal education completed?

- ☐ None
- ☐ Elementary School
- ☐ Some High School
- ☐ High School Graduate
- ☐ Some post-secondary (for example, some college, junior college, business school, trade or technical school)
- ☐ College graduate (four-year degree)
- ☐ Some graduate work
- ☐ Advanced degree (specify) ____________________

6. What is your mother's highest level of formal education completed?

- ☐ None
- ☐ Elementary School
- ☐ Some High School
- ☐ High School Graduate
- ☐ Some post-secondary (for example, some college, junior college, business school, trade or technical school)
- ☐ College graduate (four-year degree)
- ☐ Some graduate work
- ☐ Advanced degree (specify) ____________________

7. What are your long-range goals? Check only one.

☐ 1. CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent

☐ 2. CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter

☐ 3. FARMER, FARM MANAGER

☐ 4. HOMEMAKER OR HOUSEWIFE

☐ 5. LABORER such as construction worker, car washer, sanitary worker, farm laborer

☐ 6. MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official

☐ 7. MILITARY such as career officer, enlisted man or woman in the armed forces

☐ 8. OPERATIVE such as meat cutter; assembler; machine operator; welder; taxicab, bus, or truck driver; gas station attendant

☐ 9. PROFESSIONAL such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress

☐ 10. PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner

☐ 11. PROTECTIVE SERVICE such as detective, policeman or guard, sheriff, fireman

☐ 12. SALES such as salesman, sales clerk, advertising or insurance agent, real estate broker

☐ 13. SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter

☐ 14. TECHNICAL such as draftsman, medical or dental technician, computer programmer

☐ 15. OTHER (specify) ________________

☐ 16. DON'T KNOW

8. What do you expect to be doing one year after completing high school?

☐ Working full-time

☐ Entering an apprenticeship or on-the-job training program

☐ Going into regular military service or to a service academy

☐ Being a full-time homemaker

☐ Attending a vocational, technical, trade or business school

☐ Taking academic courses at junior or community college

☐ Taking technical or vocational subjects at a junior or community college

☐ Attending a four-year college or university

☐ Working part-time

☐ Other (travel, take a break, no plans)

9. What is your major field of study?

☐ General Curriculum

☐ Vocational Education Curriculum

☐ College Preparatory Curriculum

☐ Other (specify) ________________

10. Under FATHER, circle the one number that best describes the work done by your father (or male guardian). Under MOTHER, circle the one number that best describes the work done by your mother (or female guardian). The exact job may not be listed but circle the one that comes closest. If either of your parents is out of work, disabled, retired, or deceased, mark the kind of work that he or she used to do.

(Circle one number in each column.)

	Father	Mother
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01	01
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02	02
FARMER, FARM MANAGER	03	03
HOMEMAKER OR HOUSEWIFE	04	04
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05	05
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06	06
MILITARY such as career officer, enlisted man or woman in the armed forces	07	07
OPERATIVE such as meat cutter; [illegible]mbler; machine operator; welder; taxicab, [illegible], or truck driver; gas station attendant	08	08
PROFESSIONAL such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress	09	09
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	10	10
PROTECTIVE SERVICE such as detective, policeman or guard, sheriff, fireman	11	11
SALES such as salesman, sales clerk, advertising or insurance agent, real estate broker	12	12
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	13	13
TECHNICAL such as draftsman, medical or dental technician, computer programmer	14	14

Appendix B

Formative Evaluation Instrument Package

Formative Evaluation Instrument Package

Instrument Number	Instrument Title	Respondent Subjects
1 a	Participating Employer Questionnaire	(Title)
1 b	Non-participating Employer	(Title)
2	Recruitment Orientation Questionnare	LC's
3	Credit and Grading Questionnaire	LC's
4	Program Profile and Descriptor Update Questionnaire	LC's
5	Training of Learning Coordinators	LC's
6	Perceptions Toward Orientation	EBCE Students
9	Recruitment, Qualifications & Training of LC's	Design Staff
11	Learning Guide Questionnaire	Design Staff
12	Student Selection Questionnaire	Selection T.F.
14 a	Non-participating Students Questionnaire	H.S. Student samples
14 b	Student Dropout Interview Form	EBCE Withdrawals
15	Student Program Development Interview	LC's
17	Information System Questionnaire	LC's
18	Program Forms Effectiveness Interview	EBCE Students
19	Learning Activities Interview	EBCE Students
20	Perceptions of Employer Site Questionnaire	EBCE Students
21	Criterion Reference Test for Experience Site Analysis	Site Analysis Team
23	Employer Site Case Study	Experience Sites
--	Career Exploration Guide - Student Evaluation Form	Experience Site Resource Person

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 1.a.

Title: Participating Employer (1.a.)

Format: Questionnaire

Subjects and Sampling: (a) Employers (20 - 25 randomly selected); (b) Non-participating employers (as many as possible); (c) New sites

Administration Schedule: (a) & (b) ad libitum; (c) When recruited

Reliability: No studies needed.

Validity: Comparison with other (informal) information; follow-up interview with selected respondents (if time permits).

Key To Questions In Part IV Of Plan: A-1-c, d, e.

Formative Evaluation
12/12/73-Hilderbrand,
Wardrop

#1.a. - Participating Employer

1. Name of Company________________________________

2. Address________________________________

3. Name of Respondent________________________________

4. Title of Respondent________________________________

5. Telephone________________________________

BACKGROUND OF COMPANY

6. What are your main products or services? ________________

7. Is this:

a. ____ An independent company

b. How many workers are employed by the company?_______

c. ____ A division of a larger company

d. How many workers are employed by the division?______

CONTACT WITH PROGRAM

8. Have you heard of this career education program before?

a. ____ Yes

b. ____ No

If yes, how did you first hear about this program?

a. ____ Program representative known to me personally (friend, business associate, neighbor)

b. ____ Program representative not known to me personally before joining program

c. ____ Students in program

d. ____ Newspaper, radio, television, etc., appeal for employers to become involved

e. ____ Community meeting at which program was discussed

f. ____ Employer organization or professional organization with which I am affiliated

g. ____ Other (please specify) ______________________

9. Has your company ever been contacted regarding participation in the Experience-Based Career Education Program?

a. ____ Yes

b. ____ No

If yes, was the information presented sufficient to interest you in participating as an employer site for the EBCE Program?

a. ____ Yes

b. ____ No

10. Briefly describe the reason(s) you agreed to participate in the Experience-Based Career Education Program. ______________

____

____

____

11. Is there any part of the EBCE Program that does not function as you thought it would?

a. ____ Yes

b. ____ No

If yes, what? (Briefly explain) ______________________

____

____

12. To what extent have you had to make changes in your normal work habits to accommodate the students?

Seldom Often Always

1 2 3 4 5 6 7

Specify: ____

____

____

13. To what extent does working with students interfere in any way with getting your job done?

Seldom Often Always

1 2 3 4 5 6 7

14. To what extent are you willing to work with students next year if the Program is continued?

Not at all Moderately Completely

1 2 3 4 5 6 7

Describe restrictions and qualifications:

____

____

____

15. Would you recommend to an associate that their agency become a member of the EBCE Program? (Please rate your response on a 1-7 scale.)

Not at all Moderately Completely

1 2 3 4 5 6 7

If affirmative, find out who and get information to contact them.

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 1.b.

Title: Nonparticipating Employer (1.b.)

Format: Questionnaire

Subjects and Sampling:
(a) Employers (20 - 25 randomly selected);
(b) Non-participating employers (as many as possible);
(c) New sites

Administration Schedule: (a) & (b) ad libitum; (c) When recruited

Reliability: No studies needed.

Validity: Comparison with other (informal) information; follow-up interview with selected respondents (if time permits).

Key To Questions In Part IV of Plan: A-1-c, d, e.

Formative Evaluation
12/12/73-Hilderbrand,
Wardrop

#1.b. - Nonparticipating Employer

1. Name of Company____

2. Address____

3. Name of Respondent____

4. Title of Respondent____

5. Telephone____

BACKGROUND OF COMPANY

6. What are your main products or services?______________________

7. Is this:

    a. ____ An independent company

        b. How many workers are employed by the company?_________

    c. ____ A division of a larger company

        d. How many workers are employed by the division?________

8. Briefly describe the reason(s) you decided not to participate in the Experience-Based Career Education Program.

    ____

    ____

    ____

9. If you never received information concerning the EBCE Program, would you like to?

    a. ____ Yes

    b. ____ No

10. If you were contacted, why did your company decline to participate?

Declined to Participate	Major Reason	Minor Reason	Did not affect decisions
a. Anticipated complaints from regular workers	( )	( )	( )
b. Anticipated complaints from customers	( )	( )	( )
c. Anticipated problems with students	( )	( )	( )
d. Anticipated union problems	( )	( )	( )
e. Program would be too expensive	( )	( )	( )
f. Program would be too time consuming	( )	( )	( )
g. In another program	( )	( )	( )
h. Other employers reported unsatisfactory experiences (please explain)__________ ____________________	( )	( )	( )
i. Company about to change management	( )	( )	( )
j. Other (please explain)_____ ____________________	( )	( )	( )

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 2

Title: Recruitment and Orientation Questionnaire (Learning Coordinators)

Format: Questionnaire

Subjects and Sampling: Learning Coordinators (All)

Administration Schedule: Immediately after orientation is completed.

Reliability: No studies needed.

Validity: Compare with data from other sources (students, Design staff)

Key To Questions In Part IV Of Plan: C-1-a; D-1-c, k

Formative Evaluation
12/12/73-Hilderbrand,
Wardrop

#2 - Recruitment and Orientation Questionnaire (Learning Coordinators)

1. How well do you think the materials used to recruit students reflect the nature and purpose of EBCE?

a	b	c	d
____	____	____	____
Very well	Fairly well	Somewhat, but could be improved	Poorly, should be changed

If you chose c or d, please suggest changes:

____

____

____

____

* * * * *

The general sequence of activities during the orientation phase is as follows:

2. Are there other activities which should be included? ____Yes ____No

If yes, specify: ______________________________

____

3. Are there activities which should be deleted from the orientation?

____Yes ____No

If yes, specify: ______________________________________

____

4. Would you suggest any changes in the sequencing of orientation activities? ____Yes ____No

If yes, what changes? ________________________________

____

____

* * * * *

One of the important products produced during orientation is the student Program Profile. According to the AEL/EBCE model, the Profile is based on student needs and interests as reflected in:

Transcripts

Diagnostic information (skills)

Expressions of interest

Measures of aptitudes and abilities

5. Do you feel you have all the information you need about each student when you attempt to complete the Profile? ____Yes ____No

If no, please check those items you are typically lacking:

_____ Transcripts

_____ Diagnostic information (skills)

_____ Knowledge of student interests

_____ Information about aptitudes and abilities

_____ Other information which would be useful

Please specify: ________________________

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 3

Title: Credit and Grading Questionnaire (Learning Coordinators)

Format: Questionnaire

Subjects and Sampling: Learning Coordinators (All)

Administration Schedule: 12/73 and 3/74

Reliability: No studies needed.

Validity: Comparison across respondents; informal follow-up with selected respondents.

Key To Questions In Part IV Of Plan: D2-1-g, h

#3 - Credit and Grading Questionnaire (Learning Coordinators)

An important part of an LC's duties is determining the credit a student can earn by successfully completing an activity. Questions 1 and 2 deal with this task.

1. Are you aware of any guidelines for deciding the point values of an activity? ____Yes ____No

   If yes, how useful are they? ______________________________

   ____

   If no, do you think such guidelines would be useful? ________

   ____

2. Briefly, describe the criteria you use to determine "what an activity can be worth".

   ____

   ____

   ____

   ____

   ____

   ____

* * * *

Once a student has completed the task(s) specified on an activity sheet, an LC must determine how much credit should be given. Questions 3 - 5 relate to this task.

3. Are there specific criteria for judging the adequacy of a student's performance? ____Yes ____No (If no, skip to Question 5)

4. Are the criteria:

a. Clear ______________________________ Ambiguous
1 2 3 4 5

b. Difficult to apply ______________________________ Easy to apply
1 2 3 4 5

c. Known to students ______________________________ Unknown to students
1 2 3 4 5

5. Briefly describe the criteria and procedures you use in deciding how much credit a completed activity shall receive. ________

____

____

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 4

Title: Program Profile and Descriptor Update Questionnaire (Learning Coordinators)

Format: Questionnaire

Subjects and Sampling: Learning Coordinators (All)

Administration Schedule: After weeks 9, 18, and 27.

Reliability: No studies needed.

Validity: Comparisons across respondents; follow-up with selected respondents.

Key To Questions In Part IV Of Plan: D3-1-a

Formative Evaluation
12/12/73-Hilderbrand,
Wardrop

#4 - Program Profile and Descriptor Update Questionnaire (Learning Coordinators)

1. About how frequently (on the average) do you review and update the Student Program Profile?

____

2. What information do you use in updating the Profile? (Please check all that apply)

____ Transcripts

____ Test Scores

____ Student expressed interests

____ Results of previous activities

____ Other (specify): ______________________

____

____

3. Is there any information you do not have that you would find useful in updating the Profile? ____No ____Yes (specify)

____

____

____

4. About how frequently do you prepare new Program Area Descriptors for a student? ______________________

____

5. What information do you use in updating the Descriptor? (Please check all that apply)

____ Transcripts

____ Program Profile

____ Student input (What kind?) (How obtained?) ______

____

____

____

____ Record of student's past activities/accomplishments in EBCE

____ Other (specify): ____________________________

____

____

6. Is there any information you do not have that you would find useful in updating the Descriptor? ____No ____Yes (What?): ________

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 5

Title: Training of Learning Coordinators (Learning Coordinators)

Format: Questionnaire

Subjects and Sampling: Learning Coordinators (All)

Administration Schedule: 1/74

Reliability: No studies needed.

Validity: Comparisons with responses from Design Staff; follow-up with selected respondents.

Key To Questions In Part IV Of Plan: D3-1-d

Formative Evaluation
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#5 - Training of LC's (Learning Coordinators)

1. In preparation for assuming your duties as a Learning Coordinator, did you receive any specific instruction or training in the following areas?

Yes No

___ ___ 1. Philosophy, nature, and operation of EBCE Program

___ ___ 2. Role of employer sites in EBCE

___ ___ 3. Purpose, relationships, and use of the various forms used in planning and monitoring students

___ ___ 4. Developing appropriate sequences of activities in individualized instruction

___ ___ 5. Evaluating student progress in individualized instruction

___ ___ 6. Writing behavioral objectives

2. Now go back through the topics named in Question 1 and circle the numbers of those for which you think LC's should receive specific training.

3. Estimate the total number of hours of training you received in preparation for assuming your duties as a Learning Coordinator.

____

4. Did you receive any other training to prepare you to be a Learning Coordinator? ___No ___Yes (Specify topics covered): ______

____

____

5. What kind of training do you think a new Learning Coordinator should receive? Please indicate topics to be covered and give a rough estimate of the amount of time you think would be appropriate. ____

____

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 6

Title: Assessment of Students' Perceptions Towards Orientation

Format: Questionnaire

Subjects and Sampling: New students (All)

Administration Schedule: At conclusion of orientation.

Reliability: No studies needed.

Validity: Compare with data from Learning Coordinators, Design staff.

Key To Questions In Part IV Of Plan: C-1-a, i; D1-1-k

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#6 - Assessment of Students' Perceptions Towards Orientation

1. Listed below are some of the objectives which the staff of this project thought were important for orientation. In your opinion did the staff accomplish their objectives? (Circle either yes or no)

Yes	No	
		1. To give you a general overview of the purpose and goals of the EBCE Program.
		2. To introduce you to your Learning Coordinators and other EBCE staff members and to familiarize you with the role these persons play in the total EBCE Program.
		3. To acquaint you with forms you will be dealing with throughout the school year, including Activity Sheets, Program Area Descriptors, and Employer Site Selection Forms, and to provide information that will enable you to fill them out neatly and accurately.
		4. To give you a rough idea of the academic and career education learning opportunities available to you at 2-3 employer sites.
		5. To help you make an informed decision regarding whether or not you wish to remain in the EBCE Program.
		6. To aid you in the solution of transportation problems.
		7. To orient you to the types of opportunities available to you at employer sites and in the World of Work.

2. Based on your knowledge of the Program, can you list three things you particularly enjoy about the Program? ____Yes ____No

If yes, what are they?

3. Can you think of three things you particularly dislike about the Program? ____Yes ____No

If yes, what are they?

4. What are your feelings about the staff at this time? (Check the appropriate answer)

(a) very good

(b) good

(c) fair

(d) poor

(e) very poor

5. Based on your knowledge of the project, what would you change?

I would change: ________________________________

6. How did you first find out about the Experience-Based Career Education Program? (Check all that apply.)

_____ I received a letter about the Program in the mail.

_____ I picked up/was given a pamphlet about the Program at school.

_____ I read the ad about the Program in the newspaper.

_____ I read an article which described the Program in the newspaper.

_____ I heard about the Program on the radio on Station _______.

_____ I heard about the Program from my High School Counselor.

_____ I heard about the Program from a friend who was in the Program last year.

_____ I heard about the Program from a friend who had heard about it or read about it.

_____ I heard about the Program from one of my parents or another relative who had heard about it or read about it.

_____ I heard about the Program in an Assembly at school.

_____ I don't remember how I found out about the Program.

_____ Other ____

In your opinion, what is the most efficient (best) way to let students know about the EBCE Program? ________________________________

____

In your opinion, did we do a good job in describing the EBCE Program to the public? (Check one)

____ Yes

____ No

____ Unsure

What improvements can we make in this area? _____________________

____

Yes	No	
		7. Math Overview (circle either Yes or No)
		A. Did you understand the information presented?
		B. Was the information presented clearly?
		C. Was the person that presented the information prepared?
		8. Communication Overview
		A. Did you understand the information presented?
		B. Was the information presented clearly?
		C. Was the person that presented the information prepared?
		9. Natural Science Overview
		A. Did you understand the information presented?
		B. Was the information presented clearly?
		C. Was the person that presented the information prepared?
		10. Social Studies Overview
		A. Did you understand the information presented?
		B. Was the information presented clearly?
		C. Was the person that presented the information prepared?
		11. Career Education Overview
		A. Did you understand the information presented?
		B. Was the information presented clearly?
		C. Was the person that presented the information prepared?

12. Exposure Tours

(a) Which tour was the most interesting to you?

(b) Which tour was the least interesting to you?

(c) Based on your interest, what tours would you like to see in the future?

(d) Was any tour of no interest to you?

13. Program Profile:

(a) Do you feel your Learning Coordinator is adequately prepared to help you? Yes No

(b) What is the purpose of the Program Profile?

14. Program Descriptor

(a) Do you feel your Learning Coordinator is adequately prepared to help you? Yes No

(b) What is the purpose of the Program Descriptor?

15. Career Education Workshops

(a) Do you feel your Learning Coordinator is adequately prepared to help you? Yes No

(b) What is the purpose of the Workshops?

16. Are you happy about the Learning Coordinator you've been assigned to?

Yes No

17. Do you feel the Learning Coordinator is interested in you?

Yes No

18. Do you feel the Learning Coordinator is adequately prepared to help you?

Yes No

19. Based on what you know about this program, how would you compare it to the school you were attending last year. (circle your response)

a. better than b. as good as

c. worse than

20. If you could change some part of the orientation, what would it be?

21. Any additional comments

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 9

Title: Recruitment, Qualifications and Training of Learning Coordinators (Design Staff)

Format: Questionnaire

Subjects and Sampling: Design staff involved in developing Learning Coordinator role; Operations Staff

Administration Schedule: Early 1974.

Reliability: No studies needed.

Validity: No studies needed.

Key To Questions In Part IV Of Plan: D3-1-d.

Formative Evaluation
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#9 - Recruitment, Qualifications and Training of Learning Coordinators (Design Staff)

1. How are Learning Coordinators recruited?

   a. Method(s) used to publicize openings:

   ____

   ____

   ____

   ____

   b. Population from which LC's are obtained:

   ____

   ____

   ____

   ____

2. What are essential or desirable qualifications of Learning Coordinators?

   a. What academic training?

   ____

   ____

   ____

   ____

   b. What previous experience?

   ____

   ____

   ____

   ____

c. What personal characteristics?

3. After a Learning Coordinator is hired, what kind of training does he/she receive? Specify content and approximate time required.

4. What kind of training should new Learning Coordinators receive?

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 11

Title: Learning Guide Questionnaire (Design Staff)

Format: Questionnaire

Subjects and Sampling: FBCE staff responsible for preparing Learning Guides

Administration Schedule: Early 1974

Reliability: No studies needed.

Validity: No studies needed.

Key To Questions In Part IV Of Plan: B-1-c

Formative Evaluation
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#11 - Learning Guide Questionnaire (Design Staff)

1. On the average, how much time does it take to translate site analysis information into a Learning Guide?

   ______________________________ Hours

2. Are there any difficulties you regularly encounter in preparing a Learning Guide? Is there any information you need but do not usually have?

   ____
   ____
   ____
   ____
   ____
   ____
   ____
   ____
   ____
   ____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 12

Title: Student Selection Questionnaire (Staff)

Format: Questionnaire

Subjects and Sampling: Selection Task Force (All)

Administration Schedule: 12/73 and 2/74.

Reliability: No studies needed.

Validity: (12/73) Compare with informal knowledge; (2/74) compare with evaluator observations of selection process; (both) compare with student records.

Key To Questions In Part IV Of Plan: C-1-f, g.

Formative Evaluation
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Wardrop

#12 - Student Selection Questionnaire (Staff)

1. Which of the following criteria were used in making acceptance/ rejection decisions for students applying last fall? (Check all which were actually used.)

    ____ a. Eligible for enrollment in Kanawha County School system.

    ____ b. Within one year of diploma.

    ____ c. Course requirement limitations.

    ____ d. Compatibility of expressed career interest with program capability.

    ____ e. No participation in conflicting work activities.

    ____ f. Transportation considerations.

    ____ g. Health and/or personal adjustment concerns.

    ____ h. Absence of extramural commitments which would interfere with EBCE involvement.

    ____ i. Ability level.

    ____ j. Other: (Specify) ____________________________________

    ____

    ____

2. Under ideal circumstances, which of the above criteria do you think is/are the most useful for selecting students who would profit from the EBCE experience? (Circle those that apply.)

    a. b. c. d. e. f. g. h. i. j.

3. If there are any criteria you think should be used which were not in the past, what are they?

____

____

____

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 14.a.

Title: Nonparticipating Students

Format: Questionnaire

Subjects and Sampling: Students choosing not to participate in EBCE (All)

Administration Schedule: As needed.

Reliability: No studies needed.

Validity: No studies needed.

Key To Questions In Part IV Of Plan: C-1-i; D1-1-e; D3-1-b.

Formative Evaluation
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#14.a. - Nonparticipating Students

1. Name____

2. School Attending____

3. Grade____________________

4. Expected Graduation Date__________________________________

5. Are you: (Check only one in each column)

   a. ____ Male

   b. ____ Female

6. What is your school major?________________________________

7. What category best classifies your overall school standing by way of grades?

   A____(90 +)　　C____(70-80)　　F____(below 60)

   B____(80-90)　　D____(60-70)

8. Have you ever received information or been contacted about the Experience-Based Career Education Program?

   a. ____Yes

   b. ____No

   c. ____Don't remember

   If yes, briefly explain why you decided not to participate.

   ____

   ____

   ____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 14.b.

Title: Student Dropout

Format: Interview

Subjects and Sampling: Students choosing to drop out of EBCE (All)

Administration Schedule: As needed.

Reliability: No studies needed.

Validity: No studies needed.

Key To Questions In Part IV Of Plan: C-1-i; D1-1-e; D3-1-b.

Formative Evaluation
12/12/73-Hilderbrand,
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#14.b. - Student Dropout

Date:____________________

1. Name____

2. School Attending____

3. Grade__________________________

4. Expected Graduation Date____

5. Are you: (Check only one in each column)

   a. ____Male

   b. ____Female

6. What is your school major?____

7. What category best classifies your overall school standing by way of grades?

   A____(90 +)

   B____(80-90)

   C____(70-80)

   D____(60-70)

   F____(below 60)

8. Briefly state your reason for dropping out of the EBCE Program.

____

____

____

____

9. Who was your Learning Coordinator?_________________________________

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 15

Title: Student Program Development Interview (Learning Coordinators)

Format: Interview

Subjects and Sampling: Learning Coordinators (All)

Administration Schedule: Early 1974

Reliability: No studies needed.

Validity: Comparisons with informally obtained information.

Key To Questions In Part IV Of Plan: B-1-d; D1-1-c, d; D2-1-a, b, c, e.

Formative Evaluation
12/12/73-Hilderbrand,
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#15 - Student Program Development Interview (Learning Coordinators)

Introduce: One of the most important aspects of a Learning Coordinator's job is the design and monitoring of student programs. There are a number of steps involved in this process, and at each step there are new forms to complete and old forms from which to obtain necessary information.

What I want to do today is get some reactions from you about how well the system works, how useful the forms are, and what kinds of problems you encounter.

Continue: Let's begin with the orientation period. At that time, you and the student complete the Program Profile and Program Area Descriptors. In order to complete the Profile, which of the following sources of information do you use?

(1) "Yes" or "No"

____ Transcripts

____ Achievement Test Scores

____ Kuder Results

____ Information about the student's general ability (If yes, probe: What, specifically?)

____

____

____ Diagnostic Testing Results

____ The student's expressed needs and interests

Follow-up (For items to which response was "No"): You don't use ______________________________ .

Why not? (Probes: Because the information is not available? Because it is not useful?)

(2)

(Repeat for all items to which LC responded "No".)

____

____

____

____

Continue: Is there any other information you would like to have available when you complete the Profile?

(3) (If "Yes", probe: What?)

____

____

____

____

Then: Do you feel you know the student well enough to complete the Profile accurately by the time you

(4) are supposed to do it? (If "No", probe: What changes in procedure would you suggest?)

____

____

____

____

Next: When you fill out a Program Area Descriptor, do you find the

(5) Profile helpful? ____________________________________

____

Is there any information that is not in the Profile that you would find useful? ______________________________

____

Would you suggest any changes in the format in which information is presented in the Profile? ____________________

____

____

(6) What about the format of the Descriptor? -- Any changes you would like to make there? ____________________________

____

____

(7) One more question before we move on. What do you do when a student expresses an interest in a career not presently included in the EBCE sites? ____________________________

____

____

____

(8) Now let's go on to the next step. Based on the Program Descriptors, you design a set of learning experiences for the student. Do you have any difficulties in developing these learning experiences on the basis of the Descriptor? (If "Yes": What kinds of problems?) ______________________________

____

____

____

____

(9) What other considerations besides the Descriptor are involved in developing a learning experience? (For example, limitations in availability of in-house or community resources, difficulties caused by the lack of a cross-reference catalogue.)

____

____

____

____

(10) Can you give me an estimate of the average amount of time it takes you to prepare an activity sheet from a Program Descriptor?

____

____

(11) Do you have any problems because the appropriate instructional materials (people or things) for some activities are not always readily available? (If "Yes": Can you suggest any ways for dealing with this problem?) ____________________

____

____

____

____

(12) Just a few more questions and we will be finished. In planning employer-site based activities, do you find the Learning Guides useful? ________________________________

____

a. Are there any changes you would like to see in the content of Learning Guides? ______________________________

____

____

b. Is the information presented generally clear and understandable? ______________________________

____

____

c. What about the format of the Learning Guides? Would you like it changed in any way? ______________________

____

____

d. Do you use Learning Guides regularly?

____

____

e. Do you find it easy or difficult to prepare an Activity Sheet from a Learning Guide? ______________________

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 17

Title: Information System Questionnaire (Learning Coordinators)

Format: Questionnaire

Subjects and Sampling: Learning Coordinators (All)

Administration Schedule: 3/74.

Reliability: No studies needed.

Validity: Compare with anecdotal information.

Key To Questions In Part IV Of Plan: D3-1-e.

Formative Evaluation
12/12/73-Hilderbrand,
Wardrop

#17 - Information System Questionnaire (Learning Coordinators)

A Learning Coordinator must have ready access to a large quantity of information in order to successfully implement the instructional delivery system. This questionnaire is intended to provide information about your perceptions of the effectiveness and efficiency of the "information support system" used for EBCE.

1. Of the following sources of information for use in preparing a student Activity Sheet, which ones do you find helpful? (Circle the best response.)

	Not At All Helpful				Very Helpful
Program Area Descriptors	1	2	3	4	5
Learning Guides	1	2	3	4	5
In-House Guide to Lab Materials	1	2	3	4	5
Core Activity Sheets	1	2	3	4	5
Cross Reference Catalogue	1	2	3	4	5

2. How frequently do you encounter difficulty in locating information you need for planning student activities?

____________	____________	____________	____________
Quite Frequently	More often than not	Occasionally	Almost Never

3. Do you feel the various procedures and duties are adequately documented in the Operational Guidelines? ___Yes ___No
(If "No", what modifications to the Guidelines would you suggest?)

____

____

____

____

4. Are there any specific changes (in format or content) or additions you would suggest for any of the information sources you use?

____

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 18

Title: Interview - Learning Coordinators' Reactions to Program Descriptor and Employer Site Selection Form

Format: Interview

Subjects and Sampling: Students (Random, n=10, 5 to receive both 18 and 19.)

Administration Schedule: 2/74

Reliability: Compare responses on items common to instruments 18 and 19 for students receiving both.

Validity: Compare with student records.

Key To Questions In Part IV Of Plan: D1-1-f, g; D2-1-b

Formative Evaluation
12/12/73-Hilderbrand,
Wardrop

#18 - Interview - Learning Coordinators' Reaction To Program Descriptor and Employer Site Selection Form

Materials Needed: Program Descriptor for each student.

Introduction: A major emphasis of the Experience-Based Career Education Program is to develop vehicles by which we can transport to you, the student, a meaningful learning experience. The method we choose for better or worse was through a series of forms. These forms include: Program Descriptor, Employer Site Selection, Learning Guides, Activity Sheets, and so forth. I'm sure you are able to identify many more, but for the time being it's just important that you realize that many forms exist.

What I want to do today is discuss with you and get your reactions to a few of the basic forms I mentioned earlier, specifically the Program Descriptor and the Employer Site Selection Forms.

Continue: Let's begin today by discussing the Program Descriptor. During orientation you and your Learning Coordinator completed the Program Descriptor. In order to do this,

(1) what information was needed?

Yes ____ Transcripts.

or ____ Achievement Test Scores

No ____ General Ability Information about you.

(2) Can you think of any other information that is needed? (Probe the student for understanding.)

Clue: Other instruments such as Career Maturity Interview.
Student expresses his/her needs.
Program Profile.

____

____

____

If the student understands the purpose of the Program Descriptor, continue. If not, probe deeper or explain the Program Descriptor to the student.

Continue: It is on the basis of the Program Descriptors that the
specific learning activities you do are supposed to be
(3) chosen. In general, do you think the activity sheets
you have done have been related to plans on a Program
Descriptor? That is, do they fit with the plans and
objectives worked out earlier with your Learning Coordinator? (Probe for specific examples.)

____

____

____

____

____

____

____

(4) Another form you completed during orientation was the Employer Site Selection Form. Do you feel you knew enough about the kinds of opportunities available at the various sites to make "good" selections at that time? ____________________________________

____

____

____

____

(5) If you had to fill out a site selection form now, would you choose the same sites you did during orientation? (If "No", ask: What changes would you make, and why?) ________________________________

____

____

____

(6) If you wanted to spend some time at an employer site which is not now participating in EBCE, what would you do?

(If student would not request the site, probe to find out why not.)

____

____

____

____

(If student would request the site, probe to find out what he/she thinks would happen to the request; what would EBCE do about it?)

____

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 19

Title: Learning Activities Interview (Students)

Format: Interview

Subjects and Sampling: Students (random, n=12 - 15, 5 to receive both 18 and 19)

Administration Schedule: 3/74

Reliability: Compare responses on items common to instruments 18 and 19 for students receiving both.

Validity: No studies needed.

Key To Questions In Part IV Of Plan: B-1-d; D2-1-a, b, d, e, f.

Formative Evaluation
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#19 - Learning Activities Interview (Students)

Introduction: We are trying to find out if there are any EBCE forms or procedures that can be improved. In the next few minutes I am going to ask you about several parts of the program to find out if you have had problems with them or have any suggestions for improving the way things are done.

1. To begin with, back during orientation you were asked to fill out an employer selection form. Did you have enough information about available sites and experiences to make what you think are "good" choices? (If "No", ask: How do you think we could improve the way the site selection is done?) ____________________

____

____

____

____

2. When you want to find out something about an employer site, do you find the Learning Guides helpful? ____________________

____

Is there anything that is not now included in Learning Guides that you would like to know about the sites? ____________________

____

____

Do you find the way the information is presented in Learning Guides makes it easy for you to find what you want to know? ________

____

____

3. Have you ever been unable to do certain learning activities you were interested in because the resources (employer site, people, materials or books) were not available in EBCE? (If "Yes", ask student to describe the situation and tell how it was handled.)

____

____

____

____

4. Have you ever had difficulty completing an assigned activity because the materials you needed were missing or otherwise not available? (If "Yes", ask student to describe the situation and tell how the problem was handled.) ________________

____

____

____

5.a. When your Learning Coordinator gives you an activity sheet to do, do you (Always, Usually, Sometimes, or Almost Never) understand the purpose of the activity? (A U S N)

Comments: ________________________________

____

____

5.b. Is what you are supposed to do (Always, Usually, Sometimes, Almost Never) clear to you? (A U S N)

Comments: ______________________________________

____

____

5.c. Do you (Always, Usually, Sometimes, Almost Never) know what "product" you are supposed to produce in completing an activity? (A U S N) Comments: ______________________________

____

____

5.d. When you start a new activity sheet, do you (Always, Usually, Sometimes, Almost Never) know what basis the Learning Coordinator is going to use to evaluate your performance? (A U S N)

Comments: ______________________________________

____

____

5.e. Do you (Always, Usually, Sometimes, Almost Never) know how good a job you have to do to receive a good evaluation? (A U S N)

Comments: ______________________________________

____

____

5.f. Do you think the standards used to judge your work are (Always, Usually, Sometimes, Almost Never) fair? (A U S N)

Comments: ______________________________________

____

____

A couple of more questions and we will be finished.

6. Do you think the things you're interested in are given enough attention in deciding what activities you are going to do?

____

____

7. Finally, do you have any other suggestions for how we might improve the operation of EBCE?

____

____

____

____

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 20

Title: Student Perceptions of Employer Sites

Format: Ratings

Subjects and Sampling: Students

Administration Schedule:

Reliability:

Validity:

Key To Questions In Part IV of Plan: D3-1-f.

Formative Evaluction
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#20 - Student Perceptions of Employer Sites

Level of Experience

Student ______________________________

Observation ______

Employer ______________________________

Exploration ______

No. of days at employer site ______________

In-depth ______

1. Was this one of the employer sites you had selected on the employer selection form (this was filled out during orientation)?

   yes ____ no ____

2. Estimate the percentage of time the employer resource person spent with you while you were at the site.

   ____0% ____1%-25% ____26%-50% ____51%-75% ____76%-100%

3. My overall impression of the person I worked with mostly at the above employer site is: (check the most appropriate space)

Liked Very Much	Liked Some	No Feeling	Disliked Some	Disliked Very Much

4. I would describe the employer resource person as (place one check in the appropriate box):

a.	Very Helpful	Much Helpful	Helpful	Little Helpful	Not Helpful
b.	Always Available	Frequently Available	Available	Seldom Available	Never Available
c.	Very Warm	Warm	?	Cold	Very Cold
d.	Very Interested in me	Much Interested in me	Interested in me	Slightly Interested in me	Not Interested in me
e.	Very Excited About His Work	Somewhat Excited About His Work	?	Somewhat Uninterested in His Work	Did Not Like His Work

5. While at the employer site I was treated mostly like (choose one)

   ________(a) a student ________(b) an employee ___________(c) a guest

6. I found that while I was at the employer site, I

__________(a) observed mostly
__________(b) participated a great deal
__________(c) loafed mostly
__________(d) studied mostly
__________(e) observed and participated about equally

7. If you were asked to grade the employer site, what letter grade would you assign? (Circle the appropriate response)

A = excellent
B = above average
C = average
D = poor
F = very poor

8. If you were asked to grade the employer resource person, what letter grade would you assign (check the appropriate response)?

A = excellent
B = above average
C = average
D = poor
F - very poor

9. Comments: ____

____

____

____

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 21

Title: Criterion Reference Test - Employer Site Analysis

Format: Objective Test (Criterion-Referenced)

Subjects and Sampling: Site Analysis Team (All)

Administration Schedule: When Analysis Team training is completed.

Reliability: Because of small number of respondents, no studies needed.

Validity: Content validation by training staff.

Key To Questions in Part IV of Plan: B-1-a, b.

#21 - Criterion Reference Test - Employer Site Analysis

The following questions have been developed by us in order to evaluate how well we achieved our goals for employer site analysis training. The evaluation instrument is a first attempt and we recognize that it's not perfect. When you answer the questions, please don't feel that you are going to be "graded" on how well you do. Just answer them as best you can. Also, when you have finished we would appreciate any comments or suggestions on how you feel this evaluation could be improved.

Thank you for your cooperation.

Employer Site Analysis Evaluation

Part I

On the attached sheet is a list of procedures to be followed when undertaking Employer Site Analysis. Phase I refers to activities and preparation undertaken prior to the actual analysis interview; Phase II refers to those activities which take place during employer site analysis. Please place each procedure under the proper phase, and then number each term in the order in which it should take place. Some procedures may take place more than once.

	Phase I		Phase II
ORDER	PROCEDURE	ORDER	PROCEDURE
______		______	
______		______	
______		______	
______		______	
______		______	
______		______	
______		______	
		______	

Draft 10-4-73
KP

Obtain any missing information from first several pages of employer site Learning Guide.

Discuss selected employer sites with appropriate learning coordinators.

Use employer site Learning Guide check list.

Set up appointments for analysis with help of appropriate Learning Coordinators.

Read all inhouse materials.

Interview Resource Persons.

Use WOW check list.

Fill out as much as possible of first several pages of Employer Site Learning Guides.

Make Commitment for "follow-up" (return visit)

Interview contact person.

Consult central employer site files.

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Part II

The following is a list of some basic union terms and definitions. Please match each term to its definition.

A. Hiring Hall

B. Craft or Trade Union

C. Shop Steward

D. Closed Shop

E. Open Shop

F. Independent Union

G. Business Agent

H. Industrial Union

I. Union Shop

_____ Hires only union members in good standing.

_____ Will hire non-union employees.

_____ Will hire non-union employees on the provision that they become a union member within a specified length of time.

_____ A labor union with membership limited to workers within the same occupation.

_____ A labor union which admits members without regard to their specific occupation within a business.

_____ A paid employee of a trade or craft union who acts as a representative for that union.

_____ A chosen union leader within a specific union site.

_____ A labor "pool" used by a trade or craft union out of which specific work assignments are made.

_____ A local labor union with no ties to a national union organization.

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Part III

Below are five task statements. Put an "OK" in front of those statements which you think are acceptable. If you believe the task statement to be poorly written, rewrite it in acceptable form in the space provided below the statements.

Trainer for Employer Site Analysis

_____ 1. Gathers necessary materials for inservice training to conduct a training session to teach people how to do employer site analysis, uses forms, develops new materials. Presentation of session is discretionary but outcome must be very accurate.

_____ 2. Explains how to write task statements to participants.

_____ 3. Schedules rooms for inservice training for employer site analysis. Uses secretary and verbal instructions. Obtaining of a room highly prescribed - outcome must be accurate (i.e., has to secure a room)

_____ 4. Hands out materials for analysis.

_____ 5. Answers questions participants ask about employer site analysis.

Part IV

In a few short sentences, briefly sum up what you feel are the purposes of employer site analysis. Your answer need not be detailed.

draft 10-4-73
KP

FORMATIVE EVALUATION INSTRUMENT PACKAGE

INSTRUMENT NO.: 23

Title: Case Study of Employer Sites

Format: Questionnaire & Student's Career Exploration Guides.

Subjects and Sampling: All on employer sites that have at least 5 Career Exploration Guides filled out and 5 student ratings.

Administration Schedule: March, 1974

Reliability: No studies needed.

Validity: No studies intended.

Key To Questions In Part IV Of Plan: D-3, 1f

STUDENT EVALUATION FORM

This form was developed because of the difficulty encountered in accurately assessing a student's performance using the traditional grading system. Therefore, we are asking you to fill out this form **after** the student finishes his/her assignments at your employer site. Please fold and mail your evaluation back to the Learning Coordinator as soon as possible. Thank you for your assistance and cooperation.

Student ______________________ **Employer Site** ______________________

Brief Description of Experiences: ______________________

____

Comments: ______________________

	Excellent	Above Average	Average	Below Average	Poor	Not Applicable
Personal Qualities						
Accepts and understands the needs, feelings and faults of others						
Accepts and fulfills responsibilities						
Exercises good judgment						
Displays leadership ability						
Has a sense of humor						
Is accepted well by other employees						
Is cheerful						
Is cooperative						
Is courteous						
Is creative						
Is dependable						
Is friendly						
Is honest and sincere						
Is industrious						
Is willing to accept suggestions						
Dresses acceptably						
Work and Performance						
Conscientious in fulfilling assignments						
Does work neatly						
Does work accurately						
Follows directions						
Does work independently						
Works well in groups						
Turns work in on time						
Comes prepared						
Listens and cooperates						
Asks appropriate questions						
Reports to site on time						
Keeps scheduled appointments						

Attendance Sheet

Instructions: For each day of the week that has been checked, please indicate student attendance with the following code — P - Present; E - Excused Absence; U - Unexcused Absence; H - Holiday.

Student: ______________ **Learning Coordinator:** ______________ **344-8371, Extension** _____

	Monday	Tuesday	Wednesday	Thursday	Friday
Week of					
Week of					
Week of					
Week of					

Signature of Resource Person: ______________________

Preliminary Draft

Appendix C

Problem-Solving Procedures

M E M O R A N D U M

TO: Dr. Henderson, Hal Nichols, Bill Anderson, Curt Miles, John Hilderbrand
FROM: Karen Pfiffner
SUBJECT: Thickest Memo ever sent?
DATE: September 21, 1973

Attached are proposed forms to be used to assist in problem solving for program stabilization. There is a definite, but not necessarily evident, order. First, there is the "Problem Solving Procedures" portion - written by Curt Miles last week to explain the various forms (attached) developed by Steve Hyre and Gary Shank. These forms should be reviewed by all of you to determine their viability.

Second, I took one specific form - the "Problem/Need Request Form" - and wrote an explanation of it, in memo form, which can be sent to all staff if the form is adopted, and, with a few changes can also be inserted into the Operation Guides. I did not write memos of explanation for the other forms because they seem fairly self-explanatory, because they do not involve "all staff", because they have not been officially adopted for use, and because I got tired of writing.

I suspect what is needed, at this point, is a meeting of all parties involved to make decisions regarding the feasibility - desirability - revision - adoption of the included forms and proposed explanations. This should be held as early as possible next week because many members of field staff, I believe, feel a definite need for "Problem/Need Request Form" as soon as possible. As for me, I'm not even sure how I got involved in this whole issue and would like to use the form to find out.

KJP/clh

CC: Steve Hyre
Gary Shank
Jack Magan

PROBLEM-SOLVING PROCEDURES

Outline of Steps & Methods

Background

Last year the EBCE project was working under the general strategy of solving problems as they emerged, of giving priority to immediate needs, and of doing as much as we could within the time available. This year our requirements are clearer, our timelines are tighter, and our needs and priorities are somewhat different. Our overall commitment is to "Stabilization", which requires that we operationally define the conditions to achieve it, and be able to prove what we have achieved. Doing these things requires more emphasis and attention to evaluation, information systems, coordinating our decision-making, documenting our decisions and activities, and other activities which fall within the general sphere of the Stabilization Unit. A major concern within this general mandate is a clearer, more systematic, and more effective method of identifying and solving problems. The procedures outlined below are a response to that need; they reflect the initial thinking and work of Gary Shank, Steve Hyre, Curt Miles, and Karen Pfiffner, as reviewed and revised by a number of other staff members.

Purposes

These procedures are designed to be used flexibly, for big and little concerns, in order to:

(1) Allow each of us to get project problems, needs, and concerns down on paper;

(2) Build a firm data base concerning project problems and solutions;

(3) Give all of us (as individuals, task forces, and units) a way of red-flagging concerns;

(4) Allow us to deal with problems from the point of view of the total project, not just of individuals and units; and

(5) Insure that problems are solved, not lost between the cracks of divided responsibility and time pressures.

Summary of Problem-Solving Steps

The overall problem-solving procedure contains seven major steps, as follow:

Step 1 - Identification. A unit, task force, or individual identifies a problem, need, or concern.

Step 2 - Reporting. The person or group who identifies the problem clarify its precise nature, and report it on a special form. This form is sent to the Unit Head and to the Stabilization Unit.

Step 3 - Review. The Unit head reviews the problem, and gets more clarification of it if he feels this is necessary. He decides whether or not, in his opinion, the matter is internal (i.e. something he must deal with, that doesn't involve the other units), or external (something which does involve the other units). Simultaneously, the Stabilization Unit collects and assesses whatever information it has about the problem, and makes a similar internal/external decision.

Step 4 - Assessment/Initial Decision. Every problem which is reproted is reviewed by the Stabilization Management Team (Project Director and the three Associate Project Directors). The SMT reviews the internal/external recommendations of the Unit head and the Stabilization Unit head (these recommendations may differ), and jointly decides on the action to take. The review and decision may be very prefunctory when the proper action is obvious (e.g. toss it back to the Unit head to handle); it may take in-depth investigation (when the problem may require a special task force, or major decisions). The SMT makes a decision, documents the decision and reasons for it, and informs the pertinent parties (those who will carry out the decision, and the initiator of the problem).

Step 5 - Recommendations. If the problem is tossed back to the Unit head, he takes action and simply documents what it was and why. If, however, the problem is given to a task force, a unit, or the like, then Steps 5-7 take place. Whoever deals with the problem must analyse its nature, implications, and possible solutions. It then prepares a set of recommendations, submits its recommendations, problem analysis, and reasons for the specific recommendations, to the SMT.

Step 6 - Final Decision. The SMT reviews the recommendations and analyses of the task force. They make a decision about the action to be taken, and then document their decision (implement the recommendation, send it back for further work, or do something else).

Step 7 - Resolution. A task force, a unit, or an individual then carries out the approved recommendation. The result of this action is then carefully evaluated, for whatever period of time is necessary, to find out if the initial problem has been effectively resolved.

Using the Problem-Solving Steps

These seven steps appear massive and lengthy. They need not be. They are intended to allow us to resolve problems efficiently, to document our actions, and to make use of all available information and insights in our decisions. The steps are not intended to eat up time, cause delays in quickly-needed decisions, or give people a way of venting minor complaints and gripes. To avoid such dangers the steps are intended to be used flexibly and with considerable common sense.

For example:

- A Unit head who gets a problem form which requires immediate action will go ahead and act. He'll then document what he did, and let the SMT review it so everyone will know what's been done, and why.
- Routine problems (e.g. where the hell did the station wagon go? I need it.) don't go into the system. If it's anything which you suspect might hint at a flaw in the way the program works, then report it.
- The seven-step process doesn't have to be time consuming. It's quite possible that it can be completed quickly, and or with little trouble.For example, a need for an additional piece of information on the program descriptor might require little total effort - quick and obvious decisions through Step 4, a couple of people working for an hour on Step 5, and the same people making the change in another hour at Step 7. Or, the SMT can be convened at a moment's notice if something comes up which demands which demands quick action and involves several Units.
- The problem doesn't have to be immediate. If you think of something that you aren't sure we've anticipated, and will run into next month, report it. You'll get word back if it's already been taken care of, and you may have done us all a great favor if it hasn't.
- The problem doesn't have to be a problem. You may have an idea of the "Say, why don't we....." variety. Put it into the system by reporting it.

Mechanics and All That

Forms. There are a number of them, but the key one is the "Problem/Need Request Form", which is the one that starts the process. It requires the initiator to analyze and think a little bit, but that's good for the soul. All the forms are enclosed, with a description of who uses them, how, and when.

Responsibility. The Stabilization Unit has responsibility for assuring that the system works, and keeps working.

Distribution of Forms. Each person will have a bunch of the Problem/Need Request Forms. A secretary in each Unit will have copies of the others.

DRAFT

#__________

PROBLEM/NEED REQUEST FORM

From:

____

To:
( )Director
( )Des. U.
( )Ops. U.
( )Stab. U.

Date:

____

What is the Problem?

What are the causes?

Examples (as appropriate):

Recommended Solution:

UNIT HEAD RECOMMENDATION	SMT RECOMMENDATION
Date:__________________	Date:__________________
______internal	______internal
______external	______external
______unsure	______other __________
	______________________________
	______________________________
	______________________________

DRAFT

SMT DECISION

Date: ______________________________ Reg. Form # __________________

Request Person: ____

Reasons/Description For SMT Action:

DRAFT

Request Form #________

TASK FORCE WORK SHEET

Specific Problem:

Analysis of Needs/Identification of Alternatives:

Analysis of Alternatives:

D R A F T

TASK FORCE/SMT REPORT SUMMARY

Date: ______________________ Req. # ______________________

Specification of Problem: ______________________

Data Involved: ______________________

Implications: ______________________

Recommendations/Reasons: ______________________

SMT DECISION

Date:

______ approve recommendation

______ reconsider

______ other: ______________________

MEMORANDUM

TO: All Staff

FROM: Karen Pfiffner

SUBJECT: New Form

DATE: 10-8-73

Attached is a draft of the "Problem/Need Request Form" which has been developed to assist in program stabilization. Its purpose is simple: 1) to identify project problems which impact on smooth program operation; 2) to provide you with specific channels of communication for problem solving and decision making; 3) to provide you with organized and documented feedback on what is being done about the problem; and 4) to allow us to document procedural changes which are necessary for program stabilization/ replication.

The form is fairly self-explanatory, however, there are a few things you need to know. Each form will have a unique number to provide a way to track all of the forms and data relating to that specific problem. The form will be in duplicate. When you use it, one copy will go to the head of your unit and the other to stabilization which will assign to it the unique number. Your unit head then reviews the problem, and gets more clarification on it, if necessary. He decides whether or not, in his opinion, the matter is internal (i.e., something he must deal with, that doesn't involve the other units), or external (something which does involve the other units). Simultaneously, the Stabilization Unit collects and assesses whatever information it has about the problem, and makes a similar internal/external decision.

At this point, several options are available: your unit head may work out the problem by himself or within his unit: it may be worked out jointly among the unit heads and Dr. Henderson. (This is referred to as the SMT - Stabilization-Management Team - and consists of Dr. Henderson, Hal Nichols, Bill Anderson, and head of Stabilization); or, a task force may be assigned to work out the problem. In any case, when a solution has been identified you will be notified of it in written form and it will then become part of operational procedures. Although these procedures will take a little time please do make use of them because the end result will be good - everyone will end up knowing what has been done about a problem and why.

There are several cautions to be considered when using this sheet. One, try to use common sense when deciding to report a problem. Minor day to day foul ups should not go into the system unless you feel that they are a flaw in the way the program works. Two, the problem doesn't have to be immediate. If you think of something that you aren't sure we've anticipated, and will run into next month, report it. You'll get word back if it's already been taken care of, and you may have done us all a great favor if it hasn't.

Three, the problem doesn't have to be a problem. You may have an idea of the "Say, why don't we . . ." variety. Put it into the system by reporting it. And four, although the form asks for "causes and recommended solutions", you need not feel obligated to identify either. There is nothing wrong with seeing a problem but not understanding its cause or how to solve it. That's what the whole procedure is for anyway.

If you have any questions or concerns about this form and proper procedures feel free to ask. (Or, use the new form!)

KJP/csd